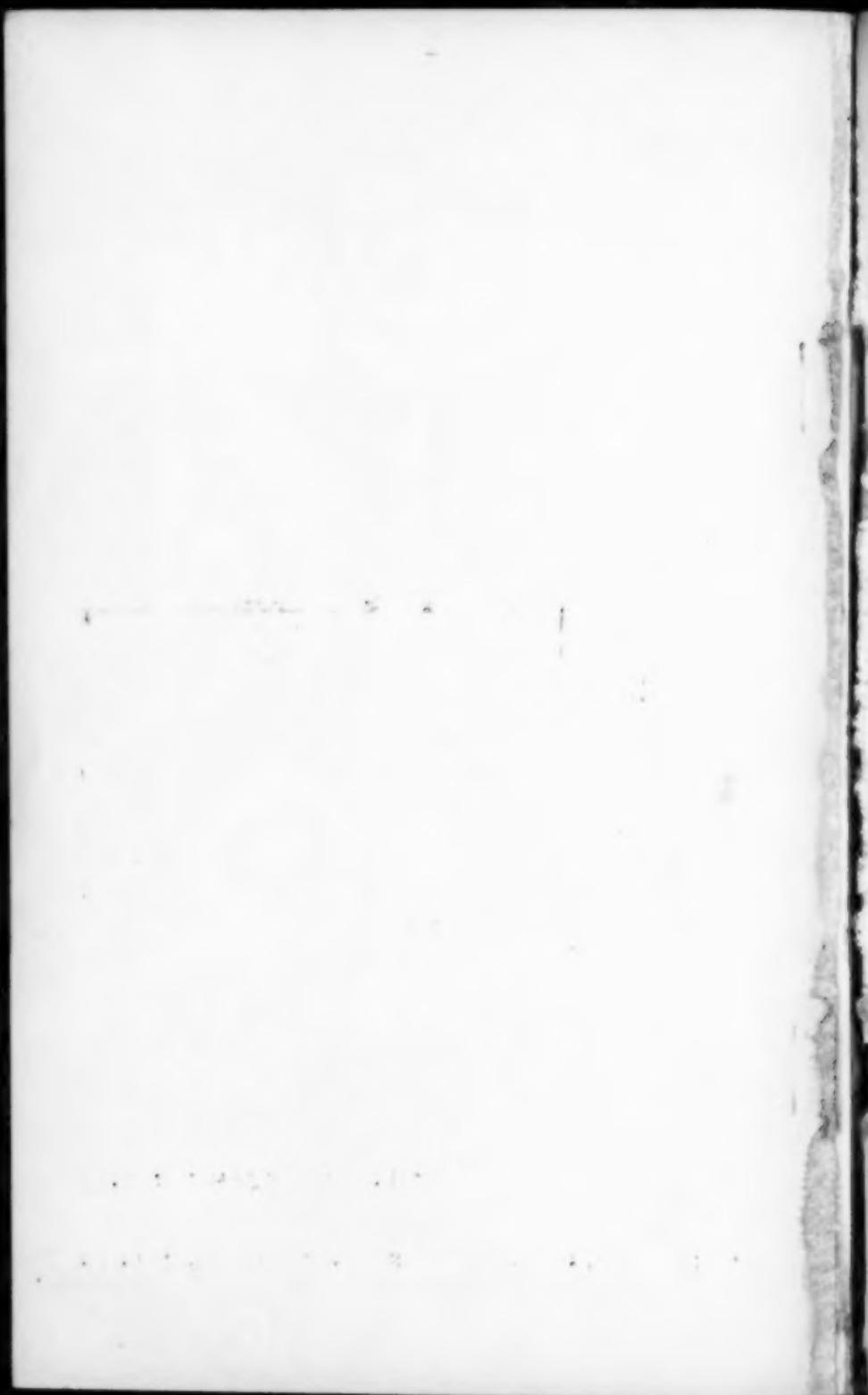


Consumer Reports



BUYING GUIDE
issue





CONSUMER REPORTS BUYING GUIDE ISSUE

FOR THE USE OF CU MEMBERS THROUGH 1943

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The purposes of Consumers Union, as stated in its charter, are "to obtain and provide for consumers information and counsel on consumer goods and services . . . to give information and assistance on all matters relating to the expenditure of earnings and the family income . . . to initiate and to cooperate with individual and group efforts seeking to create and maintain decent living standards."

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Introduction

This Guide appears at a time when wise buying is no longer just a personal problem; it has become a matter of national policy. Your first rule for wise buying in the year 1943 is to avoid buying whenever it is at all possible; and to keep your money in your pocket until the tax collector comes around, or until you find yourself in front of a War Bond window.

Avoid especially every unnecessary purchase of scarce goods. Conserve; repair; get every bit of use out of what you have (this book will help you). When you do these things you will be making a direct contribution to the war effort and you will be helping to protect yourself and other consumers against scarcities and inflation.

But when you must buy, buy carefully. As a member of Consumers Union you have an opportunity most families don't have—the opportunity to go to market equipped with inside information about products, information that even their sellers seldom possess. That information can help you get maximum value, and it has never before been so important to get the most for your money.

Furthermore, you can no longer take chances with quality. If OPA says you can buy only one of a product where last year you bought two, you've got to make that one go twice as far.

Take this book with you when you shop. If there are brand ratings of the product you're looking for, then shop for a "Best Buy." If you can't find a "Best Buy" look for an "Acceptable" brand high on the list. If you can't find any brand that gets a high rating—and with increasing scarcities this may become more frequent—look for, and use, the information on how to judge the product for yourself.

This is no time to be hesitant about making pain-

staking examinations of the things offered you in the stores. If necessary, ask clerks and store buyers for help. Remember that when you buy a shoddy product, you are wasting not only your money, but also precious labor, machines, and materials that went into the product. It usually takes only a little more labor, and a little more material to make a product that will last much longer.

Sometimes, you won't find any information in this *Buying Guide* about the product you want. CU's finances have not yet reached the point where it can cover the entire field of consumer goods. This doesn't mean you need buy anything haphazardly, however.

Shop in a few stores before you make your selection. Ask questions, examine materials and constructions, and compare. Listen to sales claims critically, don't just accept them on face value. Study labels, and ask for explanations of unfamiliar terms. You'll be a better buyer in the third store than you were in the first. Stores have comparison shoppers to do their looking (without buying). They're not losing money by it. You won't either.

As already indicated, the *Buying Guide* goes beyond just advising you on how to buy. It tells you how to get the most out of what you have by proper use, care and repair. Run through the entire book occasionally to see what information is given that applies to your particular problems. There are frequent references to government and other publications giving fuller information than can be supplied here. Get the habit of collecting and using reference materials of this kind.

There may be a Consumer Information Center in your neighborhood, with a shelf of such reference materials. If there isn't, you might get together with your neighbors to establish one. Write to OPA and to CU for materials and suggestions.

Two sections which have appeared in every issue of

the Buying Guide take on added significance this year. Those are the sections dealing with foods and nutrition, and with medicine and health. Both these sections can contribute to the maintenance of your family's physical well-being, an important matter when poor health is a luxury neither the individual nor the nation can afford.

• WATCH FOR CHANGES

It's especially important this year to watch out for changes in the products rated. In the past, any product—small private brand or big national brand—was subject to change at any time without any notice to consumer or even to retailers. But with growing raw material scarcities, the likelihood of change will be even greater. Watch the monthly Reports for new ratings of things listed in the *Buying Guide*. Each issue of the *Reports* published in 1943 will contain a cumulative index of all products covered in all the issues which have appeared since the *Guide*. Before you go out to buy, check with the cumulative index of the last issue you have as well as with the *Guide*.

While CU will retest, during the year, as many products as possible, there will be many changes which CU will not be able to check. Wherever possible, supplement the ratings with careful examination of a product you are considering, looking for special points of materials and construction described in the *Guide* and the *Reports*. In the absence of other information, even when the products are changed, you are more likely to get a good buy from a manufacturer who previously made products high on the quality list than from one whose product previously ranked low.

Supplement the *Guide*, too, with regular reading of CU's weekly *Bread and Butter*. It will keep you informed about market changes, material substitutions, OPA orders, price increases, quality depreciation and other trends affecting you as a consumer.

(Continued next page)

• WHAT'S IN THE GUIDE

The *Buying Guide* contains (1) material which previously appeared in the *Reports*, condensed for publication in one compact and handy volume, and brought up-to-date wherever possible; (2) new material not previously published in the *Reports*. Notable among such material is that on health, and foods and nutrition.

The ratings and buying advice given in the following pages supersede the contents of all previous *Guides* and all regular issues of the *Reports* prior to November 1942. Ratings of products tested more than a year ago have been brought up to date wherever possible, or have been included only where it has seemed unlikely that quality changes have seriously affected relative standing of products.

• THE RATINGS

Endless care has been expended to insure the accuracy of the ratings. Ratings of products represent the best judgment of staff technicians, consultants or both. Samples for test are obtained on the open market by CU's shoppers. Ratings are based on laboratory tests, carefully controlled use tests, the opinion of qualified authorities or the experience of a large number of persons, or on a combination of these factors. It is not unlikely, however, that new investigations or data will bring to light some errors of fact or judgment. Any such will be corrected promptly in the *Reports*.

Most ratings of necessity reflect opinion as well as scientific data. And even with rigorous tests, interpretation of findings is often a matter on which expert opinion differs. It is Consumers Union's pledge that such opinions as enter into its evaluations shall be as competent, honest, and free from bias as possible.

"*Best Buys*" should give greater return per dollar although some products rated "Acceptable" may be of higher quality. Except where noted, a product rated "Not Acceptable" is judged to be of inferior quality or potentially harmful.

• HOW HONEST ARE CU's RATINGS?

(Reprinted from the May 1940 Reports)

Almost every member of Consumers Union has encountered a storekeeper or a clerk who knew as incontrovertible fact that CU's "Best Buy" ratings are paid for or that some manufacturer got a "Not Acceptable" rating because he refused to pay.

By now we are familiar enough with this sort of cynicism to know that most of the people who say such things say them not out of malice. They say them partly because the whole concept of consumer testing organizations is still so new as to be unfamiliar to them, partly because the excesses and deceptions of much advertising have made them suspicious of almost any product information, and partly because, in this racket-ridden age, it seems to them incredible that good ratings would go to the good products and not to the highest bidders.

These people generally mean no harm, but serious harm to Consumers Union can often result from their irresponsibility. Let us state the facts for the record, and enlist the help of CU members in keeping the record straight.

Consumers Union has never received any remuneration of any nature for rating or for not rating any product or for giving it a good rating or a bad one.

Every rating that has ever been made by Consumers Union has been determined by tests, examination or use, or by the unbiased opinion of qualified authorities, and in no other ways.

Consumers Union accepts no gifts of samples from manufacturers (it returns them when they are sent) and it will not sell copies of its Reports to manufacturers or distributors for promotion use.

Such are the facts. And now a request to CU members: if you ever hear anyone say that he knows that some CU rating has been bought or improperly influenced in any way, please ask him to write down

what he says and sign his name to it; and then please send us the document.

Consumers Union takes full responsibility for the integrity of its work.

We think it is fair to ask anyone who impugns that integrity to assume responsibility for doing so, and the consequences thereof.

• PRODUCTS NOT LISTED

Many hundreds of thousands of brands of consumer goods are found in the nation's marketplace, and these are grouped into thousands of types and kinds. This *Buying Guide* issue does not, of course, offer complete coverage of all these products.

It would require the resources of the United States Government itself to test and report on even a majority of the brands to be found. And the testing and reporting of Consumers Union—whose resources are a good deal less than those of the Government—are necessarily confined to those brands which are most widely distributed and to types most often bought.

• PRICES

The prices given in the following pages are, in the majority of cases, those at which the samples tested were purchased. In many cases, however, the market has been checked during the preparation of this *Guide* (Fall of 1942) and where there have been marked changes in price, this is indicated. Mail-order prices have been brought up-to-date. Since under OPA price orders for many products, price increases are still permitted, and since in any case many prices vary from city to city and from store to store, the prices should be considered as only an approximate guide. You will find at the head of each commodity section (Food, Clothing, for example) a brief description of the general market situation for that type of commodity in

November 1942. Watch *Bread & Butter* for changes in price regulations which will affect what you pay.

• MAIL-ORDER BUYING

Numerous mail-order products are listed in CU's ratings because they are available everywhere and are frequently good buys. They are not always worth buying; in a number of cases, they have been among the poorest tested. But with large purchases particularly, it is often worth while to take the trouble to order by mail.

Members are therefore urged to get the catalogs of Sears-Roebuck and Montgomery Ward (both of Chicago), and other mail-order houses and to use them in buying products which have been rated as outstanding buys. In a number of cities telephone orders are accepted by both Sears' and Ward's.

In many cases products listed in the catalogs are not sold in the retail stores of the mail-order companies. Unless the salesman can prove to your satisfaction that the product sold in the store is the same as the product you are looking for, order it through the catalog desk located in the store. Even where the products are the same, it is usually cheaper to order through the catalog than to pay the retail store price.

Many Cooperative brands are included in the ratings. Among these are CD (Cooperative Distributors) products. Cooperative Distributors is a mail-order cooperative with offices and salesrooms at 116 E. 16 Street, NYC. Members wishing to buy from CD should write for their catalog.

Before accepting shipments sent by freight from mail-order houses, consumers should make sure that the goods are not damaged. If the goods become damaged, and you accept them, you will have to pay for repairs yourself, unless the mail-order company can collect damages from the railroad or freight company. But you are entitled to refuse to accept a damaged

shipment. You may be able to avoid trouble in returning damaged goods if all mail-order purchases are shipped COD.

• SOURCES OF SUPPLY

The information given parenthetically after brand names in the ratings varies somewhat according to the nature of the product rated. As a rule, where the product is widely available, the name and address of the manufacturer or sole distributor are given. With products sold only or predominantly through one outlet, the name of that outlet appears (e.g., Woolworth's, Macy's &c.). In some few cases, where accurate distribution data are lacking, reference is made only to the stores where the samples were purchased.

There are a number of listings of products distributed by the Associated Merchandising Corp. Following is a list of retail stores, members of the AMC:

Hutzler's, Baltimore; Filene's, Boston; R. H. White, Boston; Abraham & Straus, Brooklyn; John Shillito, Cincinnati; Wm. Taylor, Cleveland; Lazarus Co., Columbus, Ohio; Rike-Kumler, Dayton, Ohio; Hudson's, Detroit; L. S. Ayres, Indianapolis; Bullock's, Los Angeles; Burdine's, Miami; Boston Store, Milwaukee; Dayton Co., Minneapolis; Bloomingdale's, NYC; Cappell's, Oakland, Calif.; Strawbridge & Clothier, Philadelphia; Joseph Horne, Pittsburgh; Thalhimers, Richmond, Va.; Forman's, Rochester, N. Y.; The Emporium, San Francisco; Stix, Baer & Fuller, St. Louis.

Members are urged to write the manufacturer or the distributor for information relating to more direct sources of supply for products rated as good buys. Street addresses are not given in the ratings since the name of the city is normally sufficient.

• GOVERNMENT PUBLICATIONS

Government publications which are free can be

obtained from the department issuing them. Publications for which there is a charge are obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. Remittance may be made by check, money order, document coupons, or currency (at sender's risk), but not by postage stamps. The most convenient method is to keep on hand a supply of 5-cent document coupons, which may be bought from the Sup't of Documents, 20 for \$1.

• LABOR NOTES

Labor conditions under which many products are manufactured are described in most issues of the *Reports* in supplementary notes. These notes are completely independent of the quality ratings, and have no bearing on them. Thus, a product receiving a high rating may be made under poor labor conditions and some products receiving low ratings may be made under good labor conditions. Labor notes are not included in the *Buying Guide*. The very swift changes continually taking place in labor relations make it impossible to include here labor data that would remain up to date and reliable.

Ratings which were accompanied by labor notes when they originally appeared in the *Reports* carry a reference line indicating the fact. Members are urged to consult these notes for general labor information but should remember that they are specifically applicable only to conditions prevailing at the time of writing.

FOR VICTORY



BUY
UNITED
STATES
WAR
BONDS
AND
STAMPS

Food Products

Food prices rose 15% during 1942, and as this book goes to press (November, 1942) further rises seem likely in the coming months. OPA has been piercing retail food ceilings and the increases won't show up fully until 1943. As this is written, 10% of foods—fresh fruit and vegetables and fresh fish—are still not under price control, and will almost certainly continue to rise. And many controlled farm products, such as wheat, for example, can still go up until they reach parity. This also means higher food prices at the retail end. Production of "non-essential" vegetables, like artichokes, is to be restricted.

Food shortages continue to develop, although none is critical. Coffee and meat are being added to sugar as the only foods on the ration lists. Canned goods, especially canned fish and some fruits, are going to be tight, and more rationing of such items is expected. Dairy products, especially butter, are short in relation to civilian demand and will probably be rationed.

Lack of tin for cans and closures has stopped the manufacture of items like canned beans, spaghetti and sauerkraut. There will probably be plenty of cereals, poultry and eggs. The supply of fresh fish will be down, and there will be less fresh fruit and vegetables available. The American diet will continue to be adequate and wholesome, but it may contain less fats, carbohydrates and Vitamin A than before the war.

BAKING POWDER

Baking powders function by liberating small gas bubbles within the dough. The active ingredients are sodium bicarbonate (baking soda) and an acid or an acid-reacting salt. Moisture causes the bicarbonate and the acid to react, generating carbon dioxide gas. With the acid-reacting salts, heat is necessary to liberate the carbon dioxide.

There are three main types of baking powders, differing in their acid ingredient.

Alum-phosphate type. These contain both calcium acid phosphate and sodium aluminum sulfate (so-called "alum"). These "double-acting" powders liberate one-third to one-half of their gas in unbaked dough which is allowed to stand.

Phosphate type. These contain calcium acid phosphate.

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16 BAKING POWDER, BREAD

They yield as much as two-thirds of their gas in unbaked dough which is allowed to stand.

Tartrate type. These contain cream of tartar and often tartric acid. They yield most of their gas in unbaked dough which is allowed to stand.

If you add the powder immediately before baking, the type makes little difference, except that if you use very slow-acting powders with a tartrate-type recipe, a crust may form before the dough has risen, and then break later. But if you allow your cakes to stand for a time before baking, the phosphate types are best.

Be sure to measure quantity correctly; a heaping teaspoonful instead of a level one can make a difference in a cake.

Baking powder *must* be kept dry or it will be ruined. To protect it from atmospheric moisture, keep the can sealed.

From the *Reports*, July 1939.

The results of new tests of baking powders, including ratings of brands, will appear in the *Reports* early in 1943.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Reread them now and then.

BREAD

Enriched white bread, which makes up about half the total white bread sold, contains most of the important vitamins and minerals present in whole wheat. Do not buy white bread that does not bear the word "enriched" on its label. The cost of enrichment is slight, and bread so made should cost no more than any other.

The enrichment program is sponsored by the government. Bakers are not compelled to participate in it, but if they do, they must follow specifications of the Food and Drug Administration regarding the kinds and amounts of vitamins and minerals they include (see "Flour," p. 51).

Whole grain bread is a rich natural source of these important nutritional elements, but many dark breads contain only a small percentage of whole grain flour. It is wise to examine the label of a dark bread to see how much whole grain flour it actually contains.

BUTTER AND MARGARINE

No more than about a week's supply of butter should be purchased at one time, since, even with good refrigeration, butter of average quality deteriorates. In addition, butter absorbs foreign odors and it should be kept in a covered dish at all times.

Most of the butter that reaches the grocer is classified, but the consumer usually is neither shown nor told butter grades. Butter score is a numerical quality rating based largely on appearance and flavor. If it is possible to buy officially graded butter, CU recommends, for home use, creamery butter of Special or Extra Grade (score of 92 or over) or Standard Grade (score of 90 to 91). Butter scoring 92 or above may bear a government certificate of quality, and such butter keeps relatively well.

• MARGARINE

Although the price of oleomargarine ("margarine," "oleo") has risen considerably, it is still much cheaper than butter.

Oleo consists of animal or vegetable fat churned with milk or skim milk, with a small amount of other ingredients added. It is much like butter in consistency and flavor (though milder). Both products contain at least 80% fat. Oleomargarine is sometimes fortified with vitamin A; sometimes with both vitamins A and D. When fortified with vitamins, it is an excellent substitute for butter; it has much the same digestibility and food value. The vitamin A content of butter and fortified oleo is about the same, but oleo fortified with vitamin D is a more reliable source of vitamin D than butter.

In appearance, most of the oleo on the market is white, but a small capsule of harmless yellow coloring matter is included, and may be worked into the oleo before use. Some States permit the addition of yellow coloring at the factory, but the Federal tax of 10¢ a pound makes its cost too high.

Many people who have not tasted oleo in the past few years retain a prejudice against it. But oleo can be substituted for butter in cooking with almost imperceptible difference in taste. CU recommends that consumers who want to cut their food budget try oleomargarine as at least a partial substitute for butter.

The Buying Guide is not intended for the bookshelf. Carry it with you when you go shopping. It is printed in this compact, pocket size so that it will be convenient to put in your pocket or handbag. It is fully indexed so that you will find it easy to use. Make your Buying Guide work for you.

CANNED CORN

Corn is cheap, good and filling food. It contains generous amounts of fat, protein and carbohydrate. Yellow corn is rich in vitamin A, and both yellow and white corn contain some B vitamins.

Canned corn will not be abundant this year, because canners must set aside 35% of the year's pack (all of this from better grades) for government purchase.

Most corn is canned either as whole kernel or cream style. Whole kernels are cut as close to the cob as possible and are packed in a sweetened brine.

Cream style is more widely used. For this type, part of each kernel is cut from the cob and the remainder scraped off by blunt knives. The "scrapings" are mixed with the kernels. Water, salt and sugar are added, the amount varying with the maturity of the corn and the consistency desired. A heavy, creamlike consistency is best. If the consistency is too loose, too much water has been used; if too stiff, the corn is old and starchy. Starch is sometimes added to prevent separation of water, particularly with very young and tender corn. But too much starch affects the flavor.

Most canned corn is yellow, but some white corn is packed. White corn tends to be more tender, yellow corn more flavorful.

CU tested only cream style corn—two to six samples of each of 33 brands of yellow corn and 12 brands of white (a total of 158 cans)—for flavor, maturity, consistency and general appearance. Ratings are based on these factors. Unless otherwise noted, prices are the average paid for No. 2 (1 lb., 4 oz.) cans.

From the *Reports*, November 1942.

YELLOW CORN

The following brands of yellow corn were considered to offer the best value for the money in the order given. For full details see listings under "Acceptable."

BEST BUYS

Phillips. 11¢.

Bohack's Fancy. 12¢.

Ecco. 13¢.

Much-More. 13¢.

Rialto. 12¢.

ACCEPTABLE

(In order of quality without regard to price.)

Red & White (Red & White Corp., Chicago). 15¢. Excellent flavor, consistency and color.

Monarch (Reid, Murdoch & Co., Chicago). 17¢. Excellent flavor and consistency; good color.

Del Monte (California Packing Corp., San Francisco). 12¢. 1 lb., 1 oz. can. Excellent flavor and color; variable consistency.

I G A (Independent Grocers' Alliance Distributing Co., Chicago). 16¢; 11 oz. can, 11¢. Excellent flavor; good color; variable consistency.

Libby's (Libby, McNeill & Libby, Chicago). 15¢. Excellent flavor and color; fair consistency.

Nation-Wide (Nation-Wide Service Grocers, Brockton, Mass.). 15¢. Excellent flavor; good consistency; variable color.

Phillips (Phillips Packing Co., Inc., Cambridge, Md.). 11¢. Excellent flavor and color; variable consistency.

Ecco (Economy Grocery Stores, Boston). 13¢. Excellent flavor; good color; variable consistency.

Bohack's Fancy (H. C. Bohack Co., Inc., Brooklyn, N. Y.). 12¢. Excellent flavor and color; fair consistency.

White Rose (Seeman Bros., Inc., N.Y.C.). 1 lb. can, 15¢; 11 oz. can, 10¢. Good flavor; excellent color; variable consistency.

Kroger's Country Club (Kroger Grocery & Baking Co., Cincinnati). 13¢. Good flavor; excellent color; good consistency.

Stokely's Finest (Stokely Bros. & Co., Inc., Indianapolis).

(Continued next page)

ACCEPTABLE—CONT'D

- 1 lb., 1 oz. can, 15¢. Variable flavor; good color; excellent consistency.
- Dodge** (Haas Bros., San Francisco). 13¢. Variable flavor; good color; excellent consistency.
- Kroger's Avondale** (Kroger Grocery & Baking Co.). 11¢. Excellent flavor; fair color and consistency.
- Much-More** (Food Products Co. of America, Chicago). 1 lb., 3 oz., 13¢. Good flavor and color; variable but good consistency.
- S and W** (S and W Fine Foods, Inc., San Francisco). 16¢. Good flavor; variable color; good consistency.
- Rialto** (Grand Union Co., NYC). 12¢. Good flavor and color; very variable consistency.
- Lily of the Valley** (Snider Packing Corp., Rochester). 14¢; No. 303 (1 lb.), 13¢. Variable flavor; excellent color and consistency.
- Co-op Red Label** (National Co-operatives, Inc., Chicago). 13¢. Good flavor, color and consistency.
- Freshpak** (Grand Union Co., NYC). 15¢. Variable flavor; good color and consistency.
- Krasdale** (A. Krasne, Inc., NYC). 14¢; No. 303 (1 lb.), 12¢. Good flavor; excellent consistency; variable color.
- Royal Scarlet** (R. C. Williams & Co., Inc., NYC). 16¢. Good flavor; variable color and consistency.
- Finast** (First National Stores, Inc., Somerville, Mass.). 13¢. Good flavor and color; fair consistency.
- Snider's** (Snider Packing Corp.). 15¢; No. 303 (1 lb.), 11¢. Good flavor and consistency; extremely variable color.
- Yacht Club** (Reid, Murdoch & Co.). 16¢. Variable flavor; good color and consistency.
- Shurfine** (National Retailer-Owned Grocers, Inc., Chicago). 15¢. Good flavor and color; very poor consistency.
- Del Mais** (Minnesota Valley Canning Co., Le Sueur, Minn.). 13¢. Variable flavor; extremely variable color; excellent consistency.
- A & P** (Great A & P Tea Co.). 12¢. Fair flavor; good color; variable consistency.
- Iona** (Great A & P Tea Co.). 12¢. Fair flavor; variable color; fair consistency.
- Premier** (Francis Leggett & Co., NYC). 13.5¢; No. 303 (1 lb.), 12¢. Variable flavor and color; very variable consistency.

ACCEPTABLE—CONT'D

Hart (W. R. Roach & Company, Grand Rapids, Mich.). 14¢.

Fair flavor and color; very poor consistency.

Co-op Blue Label (National Co-operatives, Inc.). 12¢. Very variable flavor; fair color; extremely stiff consistency.

NOT ACCEPTABLE

American Home (National Tea Co.). 15¢. Very variable flavor; poor color; fair consistency. Flavor indicative of overheating. Since CU can not determine how widespread are the results of faulty processing, it is safer to buy an "Acceptable" brand.

WHITE CORN

The following brands of white corn were considered to offer the best value for the money in the order given. For full details see listings under "Acceptable."

BEST BUYS

Kroger's Avondale. 10¢.

Island Manor. 11¢.

Ideal. 13¢.

Country Home. 12¢.

ACCEPTABLE

(In order of quality without regard to price.)

Ideal (Wilkinson, Gaddis & Co., Newark, N. J.). 13¢. Excellent flavor and consistency; good color.

Clover Farm (Clover Farm Stores Corp., Cleveland). 17¢. Excellent flavor and consistency; good color.

Island Manor (H. C. Bohack Co., Inc.). 11¢. Variable flavor and consistency; good color.

Richelieu (Sprague, Warner & Co., Chicago). 15¢. Excellent flavor; good color; stiff consistency.

Kroger's Avondale (Kroger Grocery & Baking Co.). 10¢. Good flavor; excellent color and consistency.

Country Home (General Food Products Co., Oakland, Calif.). 12¢. Good flavor, color and consistency.

Glendale (Clover Farm Stores Corp.). 15¢. Good flavor and color; very variable consistency.

(Continued next page)

ACCEPTABLE—CONT'D

Phillips (Phillips Packing Co., Inc.). 15¢. Fair flavor; variable color; poor consistency.

American Home (National Tea Company). 15¢. Good flavor; variable color; good consistency.

Trupak (Haas Bros., San Francisco). No. 303 (1 lb., 1 oz.), 12¢. Poor flavor; good color; excellent consistency.

Gardenside (Table Products Co.). 10¢. Variable flavor and color; extremely loose consistency.

NOT ACCEPTABLE

Much-More (Food Products Co. of America). 13¢. Poor flavor; fair color; consistency variable from very stiff to very fluid.

CANNED GRAPEFRUIT JUICE

Grapefruit juice is an excellent source of vitamin C and is also rich in vitamin B₁. Canned juice of good quality should not have the bitter taste of unripe fruit or peel oil. If it has been handled properly during the canning process, the juice will be free from extraneous material, such as seeds, pulp, "rag" from the inner surface of the peel and other similar substances.

Approximately four samples each of 24 brands of grapefruit juice were tested for flavor, color, presence of extraneous material and vitamin C content. Unless otherwise noted in the ratings, about 40 milligrams of vitamin C were present in four ounces (an average serving) of grapefruit juice. Prices were noted in terms of cost per four ounce serving. In any brand, the larger the can, the lower the cost per serving. The number of can sizes currently available is limited by order of the War Production Board.

From the *Reports*, November 1942.

BEST BUYS

The following brands were considered to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Co-op Red Label. 10¢.

White Rose. 10¢.

Finast—Fancy. 10¢.

ACCEPTABLE

(In approximate order of quality without regard to price; price is for 18 oz.—No. 2—can unless otherwise stated; "serving" is equivalent to 4 oz.)

Premier (Francis H. Leggett and Co., NYC). 12 oz. can, 9¢.

Cost per serving, 3¢. Flavor excellent. High vitamin C content.

Co-op Red Label (National Co-operatives, Inc., Chicago). 11¢. Cost per serving, 23¢. Flavor excellent.

Finast—Fancy (First National Stores, Inc., Somerville, Mass.). 10¢. Cost per serving, 2.2¢. Flavor good.

Ecco (Economy Grocery Stores, Boston). 12¢. Cost per serving, 2.7¢. Flavor excellent.

White Rose (Seeman Bros., Inc., NYC). 10¢. Cost per serving, 2.2¢. Flavor excellent.

I G A (Independent Grocers Alliance Distributing Co., Chicago). 12¢. Cost per serving, 2.7¢. Flavor excellent.

Glenwood—Fancy (American Stores Co., Philadelphia). 11¢. Cost per serving, 2.4¢. Flavor excellent.

Red and White (Red and White Corporation, Chicago). 12¢. Cost per serving, 2.6¢. Flavor good.

Del Monte (Calif. Packing Corp., San Francisco). 11¢; 12 oz. can, 8¢. Cost per serving, 2.4¢ and 2.7¢. Flavor good.

Royal Scarlet (R. C. Williams and Co., Inc., NYC). 14¢. Cost per serving, 3.1¢. Flavor excellent; quality variable.

Texsun (Rio Grande Valley Citrus Exchange, Weslaco, Texas). 12 oz. can, 8¢. Cost per serving, 2.7¢. Flavor good.

Trupak (Haas Bros., San Francisco). 11¢; 12 oz. can, 8¢. Cost per serving, 2.4¢ and 2.7¢. Flavor fair. Vitamin C content variable, but high.

Polk's (The Polk Co., Haines City, Fla.). 10¢. Cost per serving, 2.2¢. Flavor good.

Seald-Sweet (Florida Citrus Exchange, Tampa, Fla.). 10¢. Cost per serving, 2.2¢. Flavor fair; 12 oz. cans had somewhat unripe flavor.

Dr. Phillips—Fancy Grade A (Dr. P. Phillips Co., Orlando, Fla.). 13¢; 13½ oz. can, 10¢. Cost per serving, 2.9¢. Flavor good.

Libby's (Libby, McNeill and Libby, Chicago). 13¢. 13½ oz. can, 10¢. Cost per serving, 2.9¢. Flavor good.

Stokely's (Stokely Bros., and Co., Inc., Indianapolis). 14¢. Cost per serving, 3.1¢. Flavor variable.

(Continued next page)

ACCEPTABLE—CONT'D

A & P—Grade A (The Great Atlantic & Pacific Tea Co., NYC). 10¢. Cost per serving, 2.2¢. Flavor good.

Dellford (Middendorf and Rohrs, NYC). 15¢. Cost per serving, 3.3¢. Flavor good. High vitamin C content.

Krasdale (A. Krasne, Inc., NYC). 11¢. Cost per serving, 2.5¢. Flavor quite variable.

White Ribbon (Krenning-Schlapp Grocer Co., St. Louis). 15¢. 46 oz. can, 25¢. Cost per serving, 3.3¢ and 2.2¢. Flavor excellent.

S and W (S and W Fine Foods, Inc., San Francisco). 13¢; 12 oz. can, 10¢. Cost per serving, 2.9¢ and 3.3¢. Flavor good. Vitamin C content variable, low in 2 cans.

Dromedary (The Hills Bros., Co., NYC). 10¢. Cost per serving, 2.2¢. Flavor fair.

Gerbro (Gerber Bros., NYC). 13¢. Cost per serving, 2.8¢. Flavor good; dark color; quality variable.

NOT ACCEPTABLE

Monarch (Reid, Murdoch and Co.). 14¢. Cost per serving, 3¢. Flavor good. One can contained a fly.

CANNED GREEN BEANS

A report on canned green beans, including brand ratings, is scheduled for publication in the *Reports* early in 1943.

The Buying Guide is designed for your use in shopping. The information in it is put as concisely as possible. In most cases you will find a much more detailed treatment of a given subject in some issue of the Reports. If you are making an important purchase and the information in the Guide is not adequate, you should consult the Reports. An alphabetical index to major subjects covered in the Reports for the past five years will be found on page 375.

CANNED PEACHES

Peaches are a rich source of vitamin A and the B complex vitamins. Canned peaches face no tin restrictions, but 32% of the 1942 pack is scheduled to go to the armed forces.

Unripe or rotted canned peaches are seldom found. Firmness of the peaches varies widely in different brands, but tastes differ as widely; some persons prefer soft peaches, others prefer them firm. Remember, though, that where peaches are packed very ripe and soft there may occasionally be an overripe section that does not retain its shape; at the opposite extreme there may be an occasional hard section.

Density of the syrup affects the sweetness of the product; with more concentrated syrups more sugar is absorbed into the fruit. Peaches are packed in light (9-15% sugar), medium (14-19% sugar), heavy (19-25% sugar) or extra heavy (25-35% sugar) syrup; in general, the label states the density accurately. Light syrup is rarely used in can sizes sold at retail. Heavy and extra heavy syrups help preserve the shape of the fruit, but many persons object to the extreme sweetness of such packs. There is no prohibition against heavy syrups in commercial canning, but no canner may use more than 80% of the cane or beet sugar he used last year.

The greater part of the peach pack is the yellow clingstone variety, though in recent years increasing amounts of freestones have been canned. Clingstones are smooth and sleek—to some people, objectionably slippery. Freestones are naturally ragged, with a distinctive, clean, fresh flavor. Certain varieties have a peach pit flavor fancied by some people.

CU found considerable variation in the drained weight of the peaches examined. Therefore, price per drained pound was used to determine "Best Buys," and the fill of the cans was noted in the ratings. Well filled cans contain approximately 10% more fruit by weight than average; poorly filled cans about 10% less than average; for a No. 2½ can this amounts to a 2¢ increase or decrease in the actual cost of the fruit.

Ratings are in order of firmness. If you like a soft peach, choose a brand near the top of the list; for a firm peach, select one near the bottom. Comments are based on examination for firmness, color, uniformity, appearance, absence of defects and syrup density.

From the *Reports*, October 1942.

(Continued next page)

CLINGSTONE

BEST BUYS

The following brands were considered to offer the best value for the money, on the basis of both quality and price. See listings under "Acceptable" for full details.

Island Manor. 20¢.

A & P. 20¢.

Castle Crest. 18¢.

Richmond. 21¢.

Rob-Ford. 19¢.

Del Monte. 20¢.

Iona. 18¢.

ACCEPTABLE

The following brands are listed in the order of average tenderness, as determined by tests for firmness, starting with the softest. Uniformity and general quality are noted. "Fill" is based on drained weight of fruit. Price is per No. 2½ can (1 lb., 13 oz. or 1 lb., 14 oz.) unless otherwise stated. A No. 303 can contains 1 lb. or 1 lb., 1 oz.

Island Manor (H. C. Bohack Co., NYC). 20¢. Slices or halves in medium syrup. Well-filled can; uniform size and uniform firmness.

White Rose (Seeman Bros., NYC). 25¢. Slices in heavy syrup. Average fill; excellent color; uniform size and firmness.

Ecco (Economy Grocery Stores, Boston). 24¢. Slices in heavy syrup. Poorly filled can; excellent color; uniform size and firmness.

Clover Farm (Clover Farm Stores, Cleveland). 29¢. Halves in heavy syrup. Well-filled can; excellent color; uniform size and firmness.

Rob-Ford (American Stores Co., Philadelphia). 19¢. Slices or halves; labeled light syrup. Well-filled can; uniform size and firmness. Syrup tested medium.

Freshpak (Grand Union Co., NYC). 20¢. Halves in medium syrup. Well-filled can; occasional overripe halves; uniform size; variable firmness.

Rosedale (Libby, McNeill & Libby, San Francisco). 22¢; No. 303 can, 14¢. Halves in medium syrup. Average fill;

ACCEPTABLE—CONT'D

occasional overripe and broken halves; uniform size; variable firmness.

Richmond (First National Stores, Somerville, Mass.). 21¢. Slices in medium syrup. Well-filled can; occasional scab blemishes, variable size and firmness.

S & W (S & W Fine Foods, Inc., San Francisco), 33¢. No. 303 can, 20¢. Slices or halves; labeled extra heavy syrup. Average fill; excellent color; occasional overripe halves; uniform size; syrup tested from heavy to extra heavy; somewhat variable firmness.

Dellford (Middendorf & Rohrs, NYC). 27¢. Slices in heavy syrup. Well-filled can; excellent color; uniform size and uniform firmness.

Co-op Red Label (National Co-operatives, Inc., Chicago). 25¢. Slices or halves; labeled heavy syrup. Average fill; occasional overripe halves; uniform size; excellent flavor; syrup tested from medium to heavy; somewhat variable firmness.

Finast (First National Stores). 21¢. Slices; labeled heavy syrup. Substandard fill; excellent color, uniform size and firmness. Syrup tested extra heavy.

Nation-Wide (Nation-Wide Service Grocers, Brockton, Mass.). 29¢. Slices or halves in heavy syrup. Well-filled can; uniform size and firmness.

I G A (Independent Grocers' Alliance Distributing Co., Chicago). 27¢; No. 1 tall can (15 oz.), 19¢. Slices; labeled heavy syrup. Poorly filled can; occasional overripe pieces, scab blemishes and pieces of peach stone; syrup tested from medium to extra heavy; somewhat variable firmness; uniform size.

Val Vita (Val Vita Food Products, Inc., Fullerton, Calif.). 18¢. Halves in medium syrup. Average fill; size and appearance of halves varied from can to can; somewhat variable firmness.

Trupak (Haas Bros., San Francisco). No. 303 can, 17¢. Slices; labeled heavy syrup. Well-filled can; uniform size and firmness; syrup tested from heavy to extra heavy.

Blue & White (Red & White Corp., Chicago). 27¢. Halves or slices in medium syrup. Well-filled can; uniform size and firmness; size of halves varied from can to can.

Iona (A&P, NYC). 18¢. Slices in medium syrup. Poorly filled can; variable size and color; somewhat variable firmness.

Stokely's (Stokely Bros. & Co., Indianapolis). 23¢; No. 303

(Continued next page)

ACCEPTABLE—CONT'D

- can**, 17¢. Halves or slices in heavy syrup. Average fill; uniform size and firmness.
- American Home** (National Tea Co., Chicago). 21¢. Slices in heavy syrup. Average fill; uniform size and firmness; occasional scab blemishes and pieces of stone.
- Much More** (Food Products Co. of America, Chicago). 20¢. Halves in medium syrup. Average fill; occasional overripe halves; uniform size; variable firmness.
- Libby's** (Libby, McNeill & Libby). 24¢. Slices or halves; labeled heavy syrup. Poorly filled can; uniform size and firmness; large halves; syrup tested from medium to heavy.
- Royal Scarlet** (R. C. Williams & Co., NYC). No. 303 can, 18¢. Slices or halves; labeled heavy syrup. Well-filled can; uniform size and firmness; syrup tested heavy to extra heavy.
- Kroger's Country Club** (Kroger Grocery & Baking Co., Cincinnati). 22¢. Slices in heavy syrup. Average fill; uniform size and firmness.
- Red & White** (Red & White Corp.). 30¢. Halves in heavy syrup. Average fill; size varied from can to can; somewhat variable firmness.
- Del Monte** (California Packing Corp., San Francisco). 20¢. Slices in heavy syrup. Well-filled can; excellent color; variable size and firmness.
- Castle Crest** (Table Products Co., Oakland, Calif.). 18¢. Slices or halves in heavy syrup. Well-filled can; excellent color; uniform size; large size halves; variable firmness.
- Dodge** (Haas Bros.). 22¢. Slices in heavy syrup. Poorly-filled can; excellent color; uniform firmness and size.
- A&P** (A&P). 20¢. Slices in heavy syrup. Well-filled can; excellent color; variable firmness; uniform size.
- Asco** (American Stores Co.). 23¢. Slices in heavy syrup. Well-filled can; excellent color and flavor; variable firmness; uniform size.
- Glendale** (Clover Farm Stores). 25¢. Slices; labeled medium syrup. Well-filled can; excellent color; variable firmness; uniform size; skin and scab blemishes present; syrup tested from medium to heavy.
- Kroger's Avondale** (Kroger Grocery & Baking Co.). 20¢. Slices in medium syrup. Poorly filled can; uniform firmness; variable size.
- Sun Glory** (Economy Grocery Stores). 19¢. Slices in medium

ACCEPTABLE—CONT'D

syrup. Poorly filled can; uniform firmness; variable color and size.

Premier (Francis H. Leggett & Co., NYC). 30¢. Slices or halves in heavy syrup. Average fill; uniform size and firmness.

Bohack's (H. C. Bohack Co.). 20¢. Slices; labeled heavy syrup. Poorly filled can; uniform size and firmness; syrup tested from medium to extra heavy.

NOT ACCEPTABLE

Grand Union (Grand Union Co.). 23¢. Label devoid of any comment as to variety of peach, type of cut or weight of syrup. Were actually yellow clingstone halves in heavy syrup. Average fill; uniform size. Peaches were either overripe or overcooked.

FREESTONE**BEST BUYS**

The following brands were considered to offer the best value for the money, on the basis of both quality and price. See listings under "Acceptable" for full details.

Ideal. 23¢.

Iona. 13¢ for No. 303 can.

ACCEPTABLE

The following brands are listed in order of average tenderness, as determined by tests for firmness. Price is for No. 2½ cans unless otherwise noted.

Ideal (American Stores Co., Philadelphia). 23¢. Halves in extra heavy syrup. Poorly filled can; excellent color; uniform size and firmness; peach pit flavor.

Monarch (Reid, Murdoch & Co., Chicago). 34¢. Slices or halves; labeled extra heavy syrup. Average fill; excellent color; uniform size; occasional overripe pieces; peach pit flavor; syrup tested from medium to extra heavy; somewhat variable firmness.

Asco (American Stores Co.). 17¢. Halves in heavy syrup. Substandard fill; uniform firmness; variable size; strong peach pit flavor.

Shurfine (National Retailer-Owned Grocers, Inc., Chicago).

(Continued next page)

ACCEPTABLE—CONT'D

26¢. Slices in extra heavy syrup. Poorly filled can; excellent color; uniform size and firmness.

Co-op Red Label (National Co-operatives, Inc., Chicago). 25¢. Halves; labeled heavy syrup. Average fill; excellent color; uniform firmness; size of halves varied from can to can; syrup tested from medium to heavy; peach pit flavor.

S & W (S & W Fine Foods, Inc., San Francisco). No. 303 can, 20¢. Slices; labeled heavy syrup. Well-filled can; excellent color; uniform size and firmness; syrup tested heavy to extra heavy.

Iona (A&P Tea Co., NYC). No. 303 can, 13¢. Slices in medium syrup. Well-filled can; variable size and firmness.

Much More (Food Products Co. of America, Chicago). 22¢. Halves, labeled medium syrup. Well-filled can; uniform size and firmness; syrup tested from medium to heavy.

Co-op (National Co-operatives, Inc.). 20¢. Halves in medium syrup. Average fill; excellent color; uniform size and firmness. One can was found to be overcooked; resulting in a stewed flavor.

NOT ACCEPTABLE

Royal Scarlet (R. C. Williams & Co.). 27¢. Halves in heavy syrup. Poorly filled can; uniform size and firmness. All cans examined were overcooked resulting in a stewed flavor and extreme darkening of the fruit.

CANNED PEAS

Peas are rich in minerals and vitamins A, the B complex and C. The two main types used in canning are the Alaska or Early June peas and the later maturing sweet varieties. The Early June peas are commonly small. The sweet varieties, so called because of their natural sweet flavor, furnish the large size peas.

For home consumption peas are most often packed in No. 2 (1 lb., 4 oz.) cans, which contain enough for four generous servings. No. 303 (1 lb.) cans, which serve three, are also available.

The liquor of canned peas contains valuable soluble food material. It provides a good stock to enrich sauces and soups or an excellent base for a vegetable cocktail.

CU tested 255 cans, covering 60 of the most popular brands.

Ratings were based on degree of maturity, which determines taste, tenderness, and appearance. Samples are listed in order of decreasing tenderness.

From the *Reports*, July 1942.

BEST BUYS

"The following peas were considered to offer the best value for the money in the approximate order given. For full details see listings under "Acceptable."

Sugar Belle Blended Sweet. 12¢.

Pacific Small Early June. 16¢.

Asco Fancy Small Early. 17¢.

Highway Sweet. 10¢.

Kroger's Country Club Quality Sifted Sweet. 15¢.

Lily of the Valley Extra Sifted Early June. 16¢.

Asco Fancy Sweet. 17¢.

Ecco Fancy Sweet Sifted. 18¢.

Bohack's Fancy Extra Sifted Sweet. 19¢.

Avondale Early Variety. 12¢.

Trupak Medium Sweet. 17¢.

Clover Farm Real Large Sweet. 17¢.

Del Monte Early Garden Sugar. 14¢ for No. 303 can.

ACCEPTABLE

(In order of tenderness without regard to price. Unless otherwise noted, prices given are the average paid for No. 2 cans)

Libby's Tiny Sweet (Libby, McNeill & Libby, San Francisco, Calif.). 18¢ for No. 303 can. Appearance fair.

Monarch Extra Small Sweet (Reid, Murdoch & Co., Chicago, Ill.). 23¢. Appearance good.

Bohack's Fancy Extra Sifted Sweet (H. C. Bohack Co., Inc., Bklyn, N. Y.). 19¢. Appearance excellent.

Royal Scarlet Tiny Early (R. C. Williams & Co., Inc., NYC). 26¢. Appearance excellent.

Monarch Medium Sifted Sweet (Reid, Murdoch & Co.). 22¢. Appearance good.

Stokely's Party Peas, Extra Small Sweet (Stokely Bros. & Co., Inc., Indianapolis, Ind.). 15¢ for No. 1 ($\frac{1}{2}$ lb.) can. Appearance good.

Finast Fancy, Very Small Sweet (First National Stores, Inc., Somerville, Mass.). 20¢. Appearance variable.

Pacific Small Early June (Great A&P Tea Co., NYC). 16¢. Appearance excellent.

(Continued next page)

ACCEPTABLE—CONT'D

- Grand Union Extra Sifted Early June** (The Grand Union Co., NYC). 21¢. Appearance excellent.
- Asco Fancy Small Early** (American Stores Co., Philadelphia, Pa.). 17¢. Appearance variable.
- Ecco Fancy Sweet Sifted** (Economy Grocery Stores, Boston, Mass.). 18¢. Appearance variable.
- S & W Medium Size Sweet** (S & W Fine Foods, Inc., San Francisco, Calif.). 21¢. Appearance good.
- Asco Fancy Sweet** (American Stores Co.). 17¢. Appearance variable.
- Lily of the Valley Extra Sifted Early June** (Snider Packing Corp., Rochester, NY). 16¢. Appearance fair.
- Sugar Belle Blended Sweet** (Table Products Co., Oakland, Calif., distributed by Safeway Stores). 12¢. Appearance good.
- Clover Farm Real Large Sweet** (Clover Farm Stores, Cleveland, Ohio). 17¢. Appearance good.
- Trupak Medium Sweet** (Haas Bros., San Francisco, Calif.). 17¢. Appearance good.
- Red & White Medium Small Sweet** (Red & White Corp., Chicago, Ill.). 19¢. Appearance variable.
- Del Monte Early Garden Sugar** (California Packing Corp., San Francisco, Calif.). 14¢ for No. 303 can. Appearance variable.
- Green Giant Sweet** (Minnesota Valley Canning Co., Le Sueur, Minn.). 15¢ for No. 303 can. Appearance excellent.
- Co-op (Red Label) Grade A Sweet** (National Cooperatives, Inc., Chicago, Ill.). 17¢. Appearance good.
- Kroger's Country Club Quality, Sifted Sweet** (Kroger Grocery & Baking Co., Cincinnati, Ohio). 15¢. Appearance good.
- Nation-Wide Fancy Sweet** (Nation-Wide Service Grocers, Brockton, Mass.). 21¢. Appearance fair.
- Bohack's Fancy Run of the Pod Sweet** (H. C. Bohack Co., Inc.). 16¢. Appearance good.
- Shurfine Sweet** (National Retailer-Owned Grocers, Inc., Chicago, Ill.). 19¢. Appearance good.
- Freshpak Sweet** (The Grand Union Co.). 17¢. Appearance good.
- White Rose Garden Sweet** (Seeman Bros., Inc., NYC). 17¢. Appearance very variable.
- IGA Sifted Early June** (Independent Grocer's Alliance Distributing Co., Chicago, Ill.). 17¢. Appearance good.

ACCEPTABLE—CONT'D

- Yor Garden Sweet** (First National Stores). 19¢. Appearance variable.
- Clover Farm Supreme, Vacuum Packed, Sweet** (Clover Farm Stores Corp.). 20¢ for vacuum can; appearance good.
- Snider's Sweet** (Snider Packing Corp.). 14¢ for 1 lb. jar equivalent to No. 303 can. Appearance fair.
- Avondale Early Variety** (Kroger Grocery & Baking Co.). 12¢. Appearance excellent.
- Highway Sweet** (Table Products Co.). 10¢. Appearance excellent.
- Kitchen Garden Extra Large Sweet** (The Grand Union Co.). 17¢. Appearance good.
- Shurfine Fancy Grade Colossal** (National Retailer-Owned Grocers, Inc.). 15¢ for No. 303 can. Appearance poor.
- Sultana Medium Size Early June** (Great A&P Tea Co.). 14¢. Appearance excellent.
- Dodge Medium Size Sweet** (Haas Bros.). 13¢. Appearance variable.
- White Rose, Tendabig, Sweet** (Seeman Bros., Inc.). 14¢ for No. 303 can. Appearance very variable.
- American Home Sifted Early June** (National Tea Co., Chicago, Ill.). 16¢. Appearance excellent.
- Avondale Sweet Variety** (Kroger Grocery & Baking Co.). 12¢. Appearance variable.
- Green Line Sweet** (Economy Grocery Stores). 16¢. Appearance variable.
- Royal Scarlet Large Sweet** (R. C. Williams & Co., Inc.). 21¢. Appearance variable.
- Libby's Jumbo Sweet** (Libby, McNeill & Libby). 16.5¢ for No. 303 can, 17¢ for No. 2 can. Appearance variable.
- Monarch Telephone Style Large Sweet** (Reid, Murdoch & Co.). 18¢. Appearance good.
- Blue & White Medium Early June** (Red & White Corp.). 16¢. Appearance good.
- Glendale Early June** (Clover Farm Stores). 17¢. Appearance variable.
- Yacht Club Large Sweet** (Reid, Murdoch & Co.). 15¢. Appearance good.
- Lily of the Valley Sifted Sweet** (Snider Packing Corp.). 14¢ for No. 303 can. Appearance excellent.
- Valley Prime Large Sweet** (Minnesota Valley Canning Co.). 12¢ for No. 303 can. Appearance variable.

(Continued next page)

ACCEPTABLE—CONT'D

Yacht Club Extra Large Sweet (Reid, Murdoch & Co.). 17¢. Appearance good.

Iona Large Size Sweet (Great A&P Tea Co.). 14¢. Appearance good.

Blue & White Garden Run Sweet (Red & White Corp.). 16¢. Appearance good.

Yacht Club Medium Large Early June (Reid, Murdoch & Co.). 15¢. Appearance fair.

Gardenside Sweet (Table Products Co.). 8¢ for No. 303 can. Appearance poor.

NOT ACCEPTABLE

Co-op Grade C Early Variety (National Co-operatives, Inc.). 15¢. Appearance fair; peas dry and hard.

Rialto Sweet (The Grand Union Co.). 14¢. Appearance very poor due to extremely turbid liquor; peas dry and hard.

Co-op Economy Pack Early June (National Co-operatives, Inc.). 12¢. Appearance very poor due to extremely turbid liquor and great variation in color of peas; peas dry and very hard.

Come Again Early June (National Tea Co.). 12¢. Appearance variable; peas dry and very hard.

Sweet Girl Sifted Early June (National Tea Co.). 14¢. Appearance good; peas dry and very hard.

Phillips Early June (Phillips Packing Co.). 12¢. Appearance extremely poor due to extraneous material, broken peas, extremely turbid liquor and great variation in color of the peas; peas very dry and hard; dirt present in one can, stones in another; peas substandard.

CANNED TOMATO JUICE

Canned tomato juice should have a true ripe fruit flavor; if the fruit used was unripe, the juice may have a bitter taste, or if it was improperly processed, it may have a cooked flavor. The juice should be free from seeds, pieces of skin, leaf or stem, which are evidence of carelessness at the cannery.

An average serving (about four ounces) of tomato juice will supply the minimum daily requirement of vitamin C and part of the daily quota of vitamins A and B₁.

CU tested an average of four samples each of 39 brands of tomato juice for vitamin C content (unless otherwise noted in the ratings, the amount present was about 20 milligrams in four ounces), flavor, color, presence of extraneous material and "mold count" (a microscopic procedure). High mold count indicates the use of rotten tomatoes or careless trimming of the tomatoes before processing.

The samples tested were packed in so many different sized cans that prices were noted in terms of cost per four-ounce serving. In any brand, the larger the can, the lower the cost per serving. Since these samples were purchased, the number of can sizes allowed for packing has been substantially reduced by order of the War Production Board.

From the *Reports*, November 1942.

BEST BUYS

The following brands were considered to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Clover Farm. 46 oz., 25¢.

Del Monte. 12 oz., 7¢.

Grand Union. 20 oz., 10¢.

Island Manor. 24 oz., 10¢.

Sunny Dawn. 18 oz., 10¢.

ACCEPTABLE

(In approximate order of quality without regard to price; "serving" is equivalent to 4 oz.)

S & W (S and W Fine Foods, Inc., San Francisco). 12 oz. can, 10¢. Cost per serving, 3.3¢. Flavor excellent.

Clover Farm (Clover Farm Stores Corporation, Cleveland). 46 oz. can, 25¢. Cost per serving, 2.2¢. Flavor excellent. Tended to separate slightly.

Del Monte (California Packing Corporation, San Francisco). 12 oz. can, 7¢. Cost per serving, 2.4¢. Flavor excellent. Tended to separate.

Grand Union—Grade A (The Grand Union Co., NYC). 20 oz. can, 10¢. Cost per serving, 2¢. Flavor excellent. Tended to separate.

Snider's (Snider Packing Corporation, Rochester, N. Y.). 20 oz. can, 11¢. Cost per serving, 2.2¢. Flavor excellent.

(Continued next page)

ACCEPTABLE—CONT'D

- Trupak** (Haas Bros., San Francisco). 15 oz. can, 9¢. Cost per serving, 2.4¢. Flavor good. Vitamin C content variable.
- Island Manor—Fancy** (H. C. Bohack Co., Inc., NYC). 24 oz. can, 10¢. Cost per serving, 1.6¢. Flavor excellent. Vitamin C content variable.
- Sunny Dawn** (General Food Products Co., Oakland, Calif.). 18 oz. can, 8¢. Cost per serving, 1.8¢. Flavor good.
- Red and White** (Red and White Corporation, Chicago). 13½ oz. can, 10¢. Cost per serving, 3¢. Flavor good.
- Campbell's** (Campbell Soup Co., Camden, N. J.). 20 oz. can, 10¢; 14 oz. can, 9¢. Cost per serving, 2¢ and 2.6¢. Flavor good.
- Monarch** (Reid, Murdoch and Co., Chicago). 20 oz. can, 13¢. Cost per serving, 2.6¢. Flavor good. Tended to separate slightly.
- College Inn** (College Inn Food Products Co., Chicago). 47 oz. can, 21¢; 13½ oz. can, 9¢. Cost per serving, 1.8¢ and 2.7¢. Flavor good. Tended to separate slightly.
- Finast** (First National Stores, Inc., Somerville, Mass.). 24 oz. can, 9¢. Cost per serving, 1.5¢. Flavor good. Tended to separate slightly.
- Armour's Star** (Armour and Co., Chicago). 24 oz. can, 12¢; 20 oz. can, 12¢. Cost per serving, 2¢ and 2.5¢. Flavor good.
- Premier** (Francis H. Leggett and Co., NYC). 12 oz. can, 10¢. Cost per serving, 3.3¢. Flavor good. Tended to separate slightly. Contained shreds of skin, leaf, &c.
- I G A** (Independent Grocers Alliance Distributing Co., Chicago). 20 oz. can, 10¢. Cost per serving, 2¢. Flavor good. Tended to separate slightly. Contained seeds and stem particles.
- Krasdale** (Krasdale Foods, Inc., NYC). 46 oz. can, 25¢; 20 oz. can, 12¢. Cost per serving, 2.2¢ and 2.4¢. Flavor good. Tended to separate.
- Heinz** (H. J. Heinz Co., Pittsburgh). 12 oz. can, 9¢. Cost per serving, 3¢. Flavor variable from poor (bitter, off flavor) to good.
- Phillips** (Phillips Packing Co., Inc., Cambridge, Md.). 20 oz. can, 9¢. Cost per serving, 1.7¢. Flavor good. Tended to separate.
- Co-op—Grade A Red Label** (National Co-operatives, Inc., Chicago). 24 oz. can, 10¢. Cost per serving, 1.7¢. Flavor

ACCEPTABLE—CONT'D

excellent. Low vitamin C content. Tended to separate.

Dellford (Middendorf and Rohrs, NYC). 46 oz. can, 25¢; 12 oz. can, 9¢. Cost per serving, 2.2¢ and 3¢. Flavor good. Tended to separate slightly.

Kemp's Sun-Rayed (Sun-Rayed Co., Frankfort, Ind.). 12 oz. can, 8¢. Cost per serving, 2.7¢. Flavor fair.

Nation Wide (Nation-Wide Service Grocers, Brockton, Mass.). 20 oz. can, 12½¢. Cost per serving, 2.5¢. Flavor good. Tended to separate.

Welch's, Grade A Fancy (Welch Grape Juice Co., Westfield, N. Y.). 16 oz. bottle, 15¢. Cost per serving, 3.8¢. Flavor good. Vitamin C content variable from low to average.

Crosse and Blackwell—Fancy (Crosse and Blackwell Co., Baltimore, Md.). 14 oz. can, 10¢. Cost per serving, 2.8¢. Flavor good. Tended to separate.

Royal Scarlet (R. C. Williams and Co., Inc., NYC). 24 oz. can, 13¢. Cost per serving, 2.2¢. Flavor good. Tended to separate.

Libby's (Libby, McNeill and Libby, Chicago). 14 oz. can, 9¢. Cost per serving, 2.6¢. Flavor good. Tended to separate.

Hurff (Edgar F. Hurff Co., Swedesboro, N. J.). 20 oz. can, 10¢; 12½ oz. can, 6¢. Cost per serving, 2¢. Flavor good. Vitamin C content variable from low to average. Tended to separate slightly.

Ecco—Fancy (Economy Grocery Stores, Boston). 20 oz. can, 9¢. Cost per serving, 1.8¢. Flavor good. Tended to separate. One out of 4 cans tested had a high mold count.

Heinz (H. J. Heinz Co.). 16 oz. bottle, 10¢. Cost per serving, 2.5¢. Flavor good. Low vitamin C content.

Beech-Nut (Beech-Nut Packing Co., Canajoharie, N. Y.). 14 oz. can, 10¢; 12½ oz. can, 10¢. Cost per serving, 2.8¢ and 3.2¢. Flavor fair. Low vitamin C content. Tended to separate slightly.

Iona (The Great Atlantic & Pacific Tea Co., NYC). 24 oz. can, 9¢. Cost per serving, 1.5¢. Flavor fair (one can had a cooked flavor). Low vitamin C content. High mold count. Tended to separate.

Stokely's Finest (Stokely Bros. and Co., Inc., Indianapolis). 20 oz. can, 12¢. Cost per serving, 2.3¢. Flavor fair. Tended to separate. Contained small pieces of leaf, stem, &c. Very low vitamin C content.

(Continued next page)

NOT ACCEPTABLE

Asco—Grade A—Fancy (American Stores Co.). 12½ oz. can, 6¢. Cost per serving, 1.9¢. Flavor good. Low vitamin C content. Contained seeds, particles of stem and one can contained a fly.

Kroger's Country Club—Grade A (Kroger Grocery and Baking Co.). 24 oz. can, 9¢. Cost per serving, 1.5¢. Flavor good. Mold count average in 4 cans was just under the USDA limit. One can contained a fly.

P and G (Paxton and Gallagher Co.). 18 oz. can, 10¢. Cost per serving, 2.2¢. Flavor poor. Very high mold count.

Swift's (Swift and Co.). 20 oz. can, 12¢. Cost per serving, 2.4¢. Flavor good. Tended to separate. Vitamin C content variable from low to average. One can contained a fly.

White Ribbon (Krenning-Schlapp Grocer Co.). 12½ oz. can, 9¢; 14 oz. can, 10¢. Cost per serving, 2.9¢. Flavor variable from good to excellent. All cans showed some seeds and small pieces of skins. One can contained three flies.

White Rose (Seeman Bros., Inc.). 20 oz. can, 10¢. Cost per serving, 2¢. Flavor varied considerably. One can of the original four bought for testing had a most disagreeable flavor. Two more cans of the same code were bought about two months later to check on the flavor: one had the same bitter, unpleasant flavor as previously, the other was all right.

CANNED TOMATOES

In an effort to increase the pack of canned tomatoes the government is increasing tomato acreage by 25%, and there are no restrictions on tin containers. The reason is that tomatoes are an important part of the American diet and rank high in content of vitamin C, vitamin A and the B vitamins.

For sauces or drinks, tomato juice or puree is generally less expensive and more convenient than canned tomatoes. For salads and general cooking canned tomatoes are least expensive, except during the Summer season; when the price of fresh tomatoes falls below about 10¢ a pound, they are likely to be the better buy.

Tomatoes are usually packed in No. 2 cans (1 lb., 3 oz.) containing about 2½ cups of tomatoes plus juice, or No. 2½ cans (1 lb., 12 oz.) containing approximately 3½ cups of

tomatoes plus juice. Smaller sizes have been discontinued for the duration.

The best packs are made from firm, fairly large tomatoes, which have been peeled and cored. Cores should be removed because worms may be lodged there. In the lower quality packs the tomatoes are of smaller or variable size and often imperfect or trimmed. Trimmed tomatoes can give as good value as whole ones if only ripe tomatoes are used and all imperfections and cores are carefully removed. If unripe fruit is used, however, it causes a bitter taste.

One hundred and eighty-six cases of 35 brands were examined for drained weight, presence of whole tomatoes, vitamin C, off-flavor (i.e., the bitter taste of unripe tomatoes), peel, blemishes and core material. Half a cup of all brands of tomatoes packed in cans had sufficient vitamin C to give the minimum daily requirement of this vitamin, but tomatoes packed in glass containers were poor in vitamin C content.

The order of brand ratings is based on "edibility": flavor, vitamin C content and weight of tomato solids. Special note is taken of the presence of whole tomatoes and, since peel, core material and blemishes indicate careless handling, their presence is also noted.

From the *Reports*, September 1942.

BEST BUYS

The following brands were considered to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Bohack's. 17¢ for No. 2½ can.

Bohack's Fancy. 14¢.

Sultana. 13¢; 17¢ for No. 2½ can.

Co-op Grade B (Red Label). 12¢; 16¢ for No. 2½ can.

Asco. 13¢.

Ecco. 12¢.

Royal Scarlet. 16¢; 20¢ for No. 2½ can.

White Rose. 15¢; 21¢ for No. 2½ can.

Finast. 12¢.

ACCEPTABLE

(In order of edibility and nutritional value—flavor and vitamin C content—with regard to price; other factors were not taken into consideration in determining order of ratings, but see comments. Although there is a marked difference in

quality from one end of the list to the other, there is very little difference between adjacent brands. Unless otherwise noted, prices are the average paid for No. 2 cans of the same brand.)

Bohack's (H. C. Bohack Co., Inc., NYC). 17¢ for No. 2½ can. Flavor excellent; tomatoes mostly whole.

Royal Scarlet (R. C. Williams & Co., Inc., NYC). 16¢; 20¢ for No. 2½ can. Flavor excellent; tomatoes mostly whole.

Bohack's Fancy (H. C. Bohack Co., Inc.). 14¢. Flavor excellent; tomatoes whole.

White Rose (Seeman Bros., Inc., NYC). 15¢; 21¢ for No. 2½ can. Flavor good; tomatoes mostly whole.

Red & White (Red & White Corp., Chicago). 16¢. Flavor variable; few whole tomatoes.

Libby's (Libby, McNeill & Libby, Chicago). 17¢. Flavor good; few whole tomatoes; cores and peel present.

Nation-Wide (Nation-Wide Service Grocers, Brockton, Mass.). 17¢. Flavor excellent; few whole tomatoes.

Sultana (A & P Tea Co., NYC). 13¢; 17¢ for No. 2½ can. Flavor variable; few whole tomatoes; cores and peel present.

Asco (American Stores Co., Philadelphia). 13¢. Flavor good; few whole tomatoes.

Shurfine (National Retailer-Owned Grocers, Inc., Chicago). 17¢. Flavor good; tomatoes mostly broken.

Sun Glory (Economy Grocery Stores, Boston). 15¢. Flavor good; tomatoes mostly broken.

Co-op Grade B Red Label (National Co-operatives, Inc., Chicago). 12¢; 16¢ for No. 2½ can. Flavor good; few whole tomatoes.

Blue & White (Red & White Corp.). 15¢; 21¢ for No. 2½ can. Flavor variable; few whole tomatoes.

Finast (First National Stores, Inc., Somerville, Mass.). 12¢. Flavor extremely variable; few whole tomatoes.

Grand Union (The Grand Union Co., NYC). 16¢. Flavor extremely variable; tomatoes mostly whole.

S and W (S and W Fine Foods, Inc., San Francisco). 16¢ for No. 1 tall can (15½ oz.). Plum tomatoes generally used for sauces, lack the flavor of the larger tomatoes; mostly whole but uncored.

Del Monte (California Packing Corp., San Francisco). 13¢; 20¢ for No. 2½ can. Flavor good; few whole tomatoes.

Yacht Club (Reid, Murdoch & Co., Chicago). 16¢. Flavor good; few whole tomatoes.

ACCEPTABLE—CONT'D

- American Home** (National Tea Co., Chicago). 15¢. Flavor good; few whole tomatoes.
- Ecco** (Economy Grocery Stores). 12¢. Flavor good; few whole tomatoes.
- Monarch** (Reid, Murdoch & Co.). 16¢. Flavor good; few whole tomatoes.
- A & P** (A & P Tea Co.). 14¢; 18¢ for No. 2½ can. Flavor good; tomatoes mostly whole; low drained weight.
- Dodge** (Haas Bros., San Francisco). 17¢. Flavor good; cores and peel present; tomatoes mostly broken.
- Avondale** (Kroger Grocery & Baking Co., Cincinnati). 13¢. Flavor variable; few whole tomatoes; cores and peel present.
- Stokely's** (Stokely Bros. & Co., Inc., Indianapolis). 14¢. Flavor good; few whole tomatoes.

NOT ACCEPTABLE

- Snider's** (Snider Packing Corp.). 15¢ for 1 lb. jar. Flavor good; very low vitamin C content; few whole tomatoes.
- Co-op Grade C Blue Label** (National Co-operatives, Inc.). 14¢, 18¢ for No. 2½ can. Flavor extremely variable; few whole tomatoes; cores and peel present.
- Freshpak** (Grand Union Co.). 16¢ for No. 2½ can. Flavor extremely variable; few whole tomatoes; cores and peel present.
- Glendale** (Clover Farm Stores Corp.). 13¢; 20¢ for No. 2½ can. Flavor and vitamin C content variable; cores and peel present; tomatoes mostly broken.
- Iona** (A & P Tea Co.). 9¢; 13¢ for No. 2½ can. Flavor extremely variable; few whole tomatoes; cores and peel present.
- I G A** (Independent Grocers Alliance). 14¢; 17¢ for No. 2½ can. Flavor extremely variable; few whole tomatoes; cores and peel present.
- Trupak** (Haas Bros.). 20¢ for No. 2½ can. Flavor poor; few whole tomatoes.
- Phillips** (Phillips Packing Co., Inc.). 15¢. Flavor poor; few whole tomatoes; cores and peel present.
- Rialto** (The Grand Union Co.). 10¢. Flavor poor; few whole tomatoes.
- Come Again** (National Tea Co.). 15¢. Flavor poor; few whole tomatoes; cores and peel present.

HOME CANNING

If directions are followed carefully, any foods may be canned safely in a large pressure cooker equipped with a temperature gauge. The small home cooker is not suitable, since it has no temperature control. Without a pressure cooker, only acid products (fruits, berries, tomatoes and rhubarb) can be put up safely. Other vegetables may be preserved only in the form of relishes, pickles and picallilis.

Since future supplies of spices for pickling are unpredictable, it's wise to save spiced pickle juice when you open a can and repack it in a sterile jar for use next Summer.

To conserve sugar, use corn syrup and sugar, half and half in almost any recipe except jams and jellies, which need three parts of sugar to one of corn syrup. With this mixture, they must be cooked a little longer to reach the jelly stage.

There are two generally used canning methods:

(1) In open kettle canning, sterilized jars are filled with completely cooked food and immediately sealed. This method is the less desirable because more vitamin C is destroyed and because difficulties in keeping food and equipment sterile tend to increase spoilage. It is most successful for jams, marmalades, preserves, jellies and pickles.

(2) In the cooked-in-jar method, jars are packed with raw, partially cooked or wholly cooked food and then processed (heated in pressure cooker, stove-oven or hot water bath for a specified time). This may be done in two ways—hot pack (precooking the food for a short time and packing hot into jars before processing) or cold pack (putting food cold into jars and then processing).

The hot water bath for processing generally is a large kettle with a tight-fitting lid (e.g. a wash boiler). Jars must be kept from touching each other and the bottom of the boiler, so that water circulates freely around them. The processing period is counted from the time the water begins to boil vigorously *after* the jars have been put into the bath. For altitudes above 1000 feet, increase the time of processing by one-fifth for each extra 1000 feet.

For oven canning a thermometer is necessary. The temperature *must* be kept at 250-275° Fahrenheit throughout the processing. This method takes about one and one-half times as long as the hot water bath.

Since canning is a battle against bacteria, foods must be ripe but without decayed spots. They must be washed thoroughly before they are peeled or the skin broken.

Many vitamins and all minerals can be saved if you measure exactly the amount of water called for in recipes and use *all* the water in which foods are cooked.

Put up only a few jars at a time. Avoid packing foods too tightly in the jars, and work out air bubbles with a clean knife blade or spatula. For a good seal, test jars and lids for leaks. Use good new rubbers. Before you cover jars, wipe any particles of food from the mouth and wipe the top and the rubber ring with a clean cloth dipped in hot water.

Cool the jars at room temperature out of a draft. Do not store until cold and be sure to keep them in a cool dark place. Light fades foods in glass jars and destroys their vitamins.

When you put up large amounts of foods, it is wise to mark on the label the name of the food, date canned, and a lot number.

Inspect your jars occasionally during the first week or ten days for signs of spoilage. If you find spoilage in one jar, examine all of that lot.

• DIRECTIONS FOR CANNING

Cold Pack

1. Wash jars in hot soapy water, rinse and scald thoroughly.
2. Prepare fruit according to recipe.
3. Pack fruit carefully, without crushing, to within $\frac{1}{2}$ inch of top of jar.
4. Add liquid—syrup, water or juice—to within $1\frac{1}{2}$ inches of top.
5. Wipe lip of jar free of seeds or pulp.
6. Put scalded rubbers and lids in place. Turn the screw-caps until firm but not tight; covers that are fixed in place with cleamps should have only one clamp fastened. Screw self-sealing tops down tight.
7. Process in hot water bath or pressure cooker according to time required for the particular food.
8. Lift jars carefully from bath or cooker and place on several thicknesses of cloth to cool where there is no draft.
9. Complete the seal by tightening screw-tops or fastening

44 HOME CANNING, CEREALS, COCOA

the second clamp. Self-sealing jars need no further sealing.

Hot Pack

Directions for hot pack are similar to those for cold pack with the following exception: Instead of packing the raw food in the jars, pre-cook it for a few minutes in water or syrup; then pack hot to within $\frac{1}{2}$ inch of top and add liquid to within $\frac{1}{2}$ inch of top of jar.

Jelly

Proper cooking means: rapid boiling, making not more than 6 or 8 glasses at a time and accurate testing for the jelly point.

The *jelly point* comes when the boiling juice reaches a temperature of 220° to 222° F. at sea level. If you do not have a thermometer, use the following test: Dip spoon into cooking mixture; hold about 12 inches above kettle and tip spoon from the side. The jelly point is indicated if the last drops from the spoon run together and slide off in a thin sheet.

After the jelly point has been reached, remove quickly from the fire. Have ready sterilized glasses which have been allowed to dry without wiping. Fill to within $\frac{1}{4}$ inch of top and let stand until jelly has set. Cover with $\frac{1}{8}$ inch of hot melted paraffin. When paraffin is cool, cover with another thin layer, tilting glass slightly to bring paraffin well up on the sides. Cover, label and store.

From the *Reports*, July, August, September 1942.

BREAKFAST CEREALS

Whole-grain cereals are a good source of the important B vitamins, but refined cereals are not.

Uncooked cereals are less convenient to serve but much cheaper than the precooked ones. Bran cereals are harmful to many persons, because they tend to irritate the intestinal tract (see page 155).

CU is planning to make new tests of breakfast cereals early in 1943. The results, including ratings of brands, will appear in the *Reports*.

COCOA

Cocoa beans are imported from Brazil and West Africa; the amount of shipping space allotted them for the last nine

months of this year supplies about 20% of the country's normal consumption. Cocoa should therefore be used most sparingly. Retail prices are almost 10% higher than in 1941.

The difference between cocoa and chocolate is in fat content. By definition of the Food and Drug Administration, chocolate must contain at least 50% cocoa fat. Cocoa is the powder made from chocolate after some of the natural oil has been pressed out.

Three types of cocoa are in general use, two of which are covered by Federal specifications:

Breakfast Cocoas. These must have a cocoa fat content of at least 22% to meet FDA requirements. They are at least as nutritious as the next class, Dutch Process Cocoa, and much less expensive.

Dutch Process Cocoas. These have the same fat requirement as Breakfast Cocoa, but are roasted with an alkali, which reacts chemically with the cocoa, increasing the smoothness and modifying color and flavor. Dutch Cocoas are generally more expensive than other types, and some authorities believe that the alkali treatment may reduce their digestibility.

General Purpose Cocoas. Since these are not covered by FDA specifications, there is no set figure on their fat content. Generally it ranges from 10% to 18%. The average cost is much lower than that of either of the other two types.

Keep cocoa covered and protected from light, and store it in a cool dry place, because the oils in cocoa deteriorate easily. Cocoa butter has no flavoring value, so that for most purposes, general purpose cocoa is satisfactory, and cheaper.

To prevent cocoa from lumping, first add the necessary sugar, then make it into a paste with cold water, then add the hot milk.

Although cocoa is often used in feeding young children, it contains the drug theobromine, which is closely related to caffeine. Theobromine, besides its stimulating effect (not so strong as that of caffeine), is also a diuretic (tends to increase flow of urine). For these reasons, cocoa should not be given to nervous children, or to any children just before bedtime.

COFFEE

With coffee supplies being rationed, consumers must economize—get the most cups possible per pound and avoid waste of left-overs.

(Continued next page)

Care in brewing is far more important than the variety of bean used; most persons cannot tell one brand from another when both are brewed to the same strength. The first economy, therefore, is to buy the cheapest dark brown roast you can get fresh. Up to the dark brown stage, roasting develops the flavor of coffee, but very dark roasting (the almost black French roast or the charcoal-black Italian roast) destroys most of the caffeine and delicate flavor and produces bitterness.

The flavor deteriorates rapidly once coffee is roasted, and more rapidly after it is ground. Buy freshly-roasted coffee and, if you can, grind it just before use; otherwise, have it ground just before you buy it, and keep it in the refrigerator.

Addition of a small amount of Italian roast coffee (an ounce or two to a pound of regular coffee) will increase your yield by a third to a half, with little loss of flavor. Adding a small amount of chicory (no more than half an ounce to a pound of coffee) also increases the yield about 30% without damaging flavor or aroma. Pure extract of chicory is extremely bitter, but experts consider that a small amount actually improves the flavor of the brew.

A tablespoon of coffee to a cup of water provides enough flavoring materials for a rich brew. Maximum economy means extracting as much coffee as possible from the bean: the caffeine, which dissolves first; the volatile materials responsible for flavor and aroma, which dissolve next; and the tannins and other substances, the last to dissolve, which give the bitter flavor, the after-taste and the color but have no stimulant effect and little aroma.

Among the methods of making coffee, "double-drip" is the most successful economy. Boiling water is allowed to drip through the grounds and then poured back and allowed to drip through the grounds a second time. The drip process extracts all of the caffeine and flavor, whereas longer extraction or hotter water (as in long percolation or boiling) sends the volatile flavoring oils off into the air. Double dripping increases the yield about 30% and, in the opinion of many, improves the brew. Coffee for dripping should be ground very fine and a filter paper used if necessary to keep the grounds from going through the holes.

The vacuum-return method (e.g. Silex) yields flavor equal to the drip process; it is somewhat more economical than single drip, less so than double drip.

Short percolation gives satisfactory flavor but is uneconomical; longer percolation results in more complete extraction but sacrifices much of the flavor quality.

Boiling provides the most thorough extraction, but most of the aroma and pleasant coffee quality are lost in the process.

Enamel or glass pots give the best results for percolation or boiling, since the tannic acid extracted reacts with metal. Aluminum or glass is quite satisfactory for the drip or vacuum return method. Iron is to be avoided. Any pot must be washed thoroughly with soap and water after use.

Left-over coffee, poured into a glass jar, can be cooled in the refrigerator for iced coffee or mixed with carbonated water and sugar for a pleasant Summer drink. It can be used in gelatin desserts, puddings and cakes, or it can be added to the freshly-brewed coffee for the next meal. With slight loss of flavor, left-over coffee can be reheated to drinking temperature, but care must be taken not to bring it to a boil.

From the *Reports*, August 1942.

DRIED FRUITS

Dried fruits will be of little help in making up for shortages of canned fruits in 1943. Heavy demands for military and lend-lease use have brought about a shortage of prunes and raisins and practically eliminated dried apricots, peaches, and pears from the civilian market. Domestic production of dates is very small, and there are no imports. The supply of figs will be little affected by government needs, but because of shortages of other dried fruits and the lack of imports, civilian demand will probably greatly exceed the amounts available.

There are ceiling prices on dried fruits, but these are about 60% higher than the pre-war prices.

Dried apricots, peaches, apples, pears (and sometimes other fruits) are commonly treated with sulfur dioxide to preserve them, to keep them from darkening and to increase their moisture content. Most authorities believe that the treatment is harmless.

Examine the labels on dried-fruit packages carefully. Added sulfur dioxide should be indicated. The words "moisture added" on a label usually mean simply that you will get less fruit for your money. If you buy dried fruits in bulk, look for such statements on the box or carton in which they are kept.

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Inspect all dried fruits carefully. Dirty, moldy and insect-infested dried fruits are all too common.

Dried fruits may be decidedly dangerous if swallowed whole or incompletely chewed, because when they become moist they swell up and may obstruct the intestine.

EGGS

An egg a day in the diet is what food authorities recommend. Eggs are an excellent source of vitamin A and also contain vitamins B, G and D, proteins, fats and minerals.

Grades of eggs have little significance unless the eggs are properly stored, both before sale and at home. Unless they are kept at refrigerator temperatures, they deteriorate rapidly.

Forty of the states have egg-grading laws, some of which differ in certain respects from the standards set up by the U. S. Dept. of Agriculture. The Federal law establishes four grades in which eggs may be classified according to quality.

1. Grade AA or U. S. Special: This top grade is seldom available on the market.

2. Grade A or U. S. Extra: For all practical purposes the best egg you can buy. It is suitable for soft-boiled or poached eggs.

3. Grade B or U. S. Standard: Generally priced much lower; satisfactory for cooking where the egg is flavored with other tastes. Many families find grade B eggs satisfactory for all uses.

4. Grade U. S. Trade: For further economy, this egg may be used in foods where the egg taste matters little.

Advances in storage of eggs in recent years have reached the point where today well-stored eggs are considered as good as fresh ones. Storage eggs are often much cheaper. They can be graded just like fresh ones, except that the two top grades must be labeled "storage" and the lower grades may not be labeled "fresh."

Federal grades have two advantages over many state grades. Federal regulations require statement of time of grading. This is important, since storage for a few days under poor conditions can change the quality of an egg. Federal grading also establishes standard weight limits for small, medium and large eggs. Usual unofficial designations, "small" and "large," are vague terms; there may be wide variations in weight from one dozen to the next.

FATS AND OILS

Fats and oils are a cheap source of energy; they satisfy appetite and add to the palatability of other foods, and they provide necessary fatty acids. The vitamin A content of cooking fats is unimportant, because cooking temperatures generally destroy the vitamin. The vitamin content of all refined oils is negligible.

Medical opinion agrees that one type of oil is about as digestible as another. Cases of indigestion are due to individual sensitivity to certain types. However, there is a limit to the amount of fat that can be eaten without discomfort.

For flavoring, butter and olive oil are generally preferred. Oleomargarine makes an inexpensive and satisfactory butter substitute (see page 17).

Olive oil today is usually a bland, refined product. Because it is scarce and expensive, it is often blended with cheaper oils; also, other oils are artificially colored and flavored to resemble olive oil. Blends and imitations are satisfactory, but sometimes they are dishonestly labeled and sell for exorbitant prices.

Buy olive oil from reliable dealers, not from peddlers; much adulterated oil is being "bootlegged" from door to door. Pure olive oil is less costly if bought in quantities over a quart. Blends can be mixed at home at great savings. Try mixing three parts of soya bean or peanut oil with one part of olive oil; vary the proportions to taste.

For frying, vegetable oils and hydrogenated oils (*Crisco* type) are best; they don't smoke at low temperature or develop pungent odors and off-flavors. Frying fats can be re-used once or twice if strained and stored at low temperatures, but once used, they tend to deteriorate rapidly. Taking a limited amount for each frying is better economy than repeated re-use of cooked oil. All waste fats and oils should be collected and turned in for salvage.

Hard fats, such as hydrogenated oils and lards, are best for shortening. Hydrogenated oils are merely vegetable oils which have been solidified by treatment with hydrogen gas. This process gives them better keeping qualities.

Lard is of several types: "leaf" lard, made from the internal fatty tissues of the hog, is best; "back" lard, rendered from surface tissues, is satisfactory but should cost much less.

(Continued next page)

Some manufacturers use the word "leaf" in their brand names, but this doesn't necessarily mean that the product is a leaf lard. Look for a separate statement on the label indicating the source of the lard. Also look for the legend "U. S. Inspected and Passed by the U. S. Dep't of Agriculture," which indicates that they were packed under Federal supervision.

The most commonly used vegetable oils, both hydrogenated and liquid, are corn, cottonseed, peanut, soya bean or mixtures of these. Blends of several are superior to a single oil in flavor and keeping qualities. Artificial color or flavor in salad oils frequently masks defects in quality and therefore should be avoided.

Fats should generally be kept under refrigeration, and only vegetable oils and hydrogenated oils of good keeping qualities should be stored for any length of time. Oils put up in glass must be kept in a cool dark place to prevent spoilage. Olive oil may last a year or more, but no processed oils like cottonseed, corn, sunflower or soya bean will be usable for more than a few months.

From the *Reports*, August 1941.

FRESH FISH

There have been no standards of quality set up by any government agency for fresh fish. The following rules may be helpful:

1. The eyes should be bright, clear and firm, not clouded or sunken.
2. The flesh should be firm and elastic.
3. The gills should be bright and fresh in color, rather than grey.
4. The scales should not be loose; they should cling firmly to the skin, and have a characteristic sheen.
5. The odor should be fresh, never tainted or stale. If there is even a suspicion of taint, the fish should not be purchased.

Lobsters, clams, crabs and oysters should be cooked alive. The eyes of live lobsters and crabs are bright; the shells of live oysters and clams are tightly closed all around.

Shrimps are sold fresh without their heads, and have a pearly grey color until cooked. If they are purchased raw, they should be cooked without delay.

FLOUR

The average person in this country supplies about one-fourth of his energy requirements with some form of flour. Because it provides an especially cheap source of energy, persons of low income use far more flour than this.

Whole wheat contains valuable vitamins and minerals that are removed in the ordinary refining process used to make white flour. "Enriched" flour contains some of these vitamins and minerals within maximum and minimum limits set by the Federal Food and Drug Administration. Present regulations require thiamin (vitamin B₁), niacin (nicotinic acid) and iron to be present if flour is labeled "enriched." Riboflavin (vitamin G) will also be a required ingredient as soon as enough is available—probably by April 1943. The use of enriched white flour products instead of plain white flour will substantially increase the amounts of some of the essential B vitamins and iron in your diet. The cost of enrichment is very slight, not enough to affect the price of flour.

Flour is classified into three types, according to the use for which it is best suited. Bread flour, which is rich in protein, is seldom used for home baking today. Cake flour is milled from soft winter wheat with considerably lower protein content, and is softer and finer in texture. It is used in homes where much baking is done. Cake flour is ideal for pastries, cookies, biscuits, piecrust and baking powder cakes, but won't do for baking that requires a tougher, stronger dough. All-purpose or family flour, which is a compromise in protein strength between bread and cake flour, takes the place of both in many households.

Self-rising cake flours have baking powder added. They do a satisfactory job, but they do not keep well, and CU regards them as a very expensive way of buying baking powder.

Pancake flours are a blend of several cereal flours (blending helps to avoid "raw" or doughy cakes) plus soda, calcium phosphate, salt, sugar and generally, powdered sweet skim milk. Only milk or water need be added to make a batter. There are two types of pancake flour in general use, the white pancake mixture and the buckwheat type.

Where it could be obtained, the price for a 24½-lb. bag is given in the ratings. Some brands have discontinued this size. Most distributors have curtailed the number of sizes of packages they offer, and some brands are available in one size only.

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The flours were tested to determine protein content, moisture, ash, color, absorption, loaf volume and dough or batter quality. "Short" in the ratings refers to a flour which gives high loaf volume and large yield; "plastic" refers to good kneading quality. Actual baking tests were the most important consideration in rating.

From the *Reports*, September 1942.

ALL-PURPOSE FLOURS

BEST BUYS

The following brands of the "Acceptable" list were judged to offer the best value for the money. For full details, see listings under "Acceptable."

Harvest Day. 6 lb., 27¢; cost per lb., 4.5¢.

Sunnyfield. 3½ lb., 16¢; cost per lb., 4.6¢.

Blue Jewel. 5 lb., 23¢; cost per lb., 4.6¢.

Co-op. 5 lb., 24¢; cost per lb., 4.8¢.

Ecco. 5 lb., 16¢; cost per lb., 3.2¢.

Bohack's loose bag. 1¼ lb., 5¢; cost per lb., 4¢.

Finast. 5 lb., 21¢; cost per lb., 4.2¢.

ACCEPTABLE

(In order of increasing cost per lb., but see comments)

Ecco (Economy Grocery Stores Corp., Boston). Bleached, enriched. 5 lb., 16¢; cost per lb., 3.2¢. Good, springy dough, quite strong. Best for bread and yeast-leavened cake.

Bohack's loose bag (H. C. Bohack Co., Inc., Brooklyn). 1¼ lb., 5¢; cost per lb., 4¢. 24½ lb., 79¢. Good, spongy dough.

Finast (First National Stores, Inc., Boston). Bleached. 5 lb., 21¢; cost per lb., 4.2¢. 24½ lb., 93¢. Good, strong dough.

Harvest Day (Kroger Grocery & Baking Co., Cincinnati). Bleached, enriched, calcium phosphate added. 6 lb., 27¢; cost per lb., 4.5¢; 24½ lb., 89¢. Excellent, flaky.

Crescent (P. H. Butler Co., Pittsburgh). Bleached. 5 lb., 23¢; cost per lb., 4.6¢. 24½ lb., 85¢. Fair, spongy, strong dough.

Sunnyfield (A&P). Not bleached, enriched. 3½ lb., 16¢; cost per lb., 4.6¢. 24½ lb., 85¢. Very good, spongy dough.

Blue Jewel (Jewel Food Stores, Chicago). Bleached, enriched. 5 lb., 23¢; cost per lb., 4.6¢. 24½ lb., 89¢. Very good, spongy, springy dough.

ACCEPTABLE—CONT'D

- Co-op** (Eastern Cooperative Wholesale, NYC). Unbleached, enriched. 5 lb., 24¢; cost per lb., 4.8¢. Very good dough, short, plastic, flaky. Good cake quality.
- Mystic** (International Milling Co., Minneapolis). Bleached. 5 lb., 25¢; cost per lb., 5¢. 24½ lb., 97¢. Very good spongy, springy dough.
- Radio** (Thomas Roulston, Inc., Brooklyn). Unbleached. 3½ lb., 18¢; cost per lb., 5.1¢. 24½ lb., 85¢. Good, spongy dough.
- Gold Seal** (American Stores Co., Philadelphia). Bleached: enriched. 3½ lb., 19¢; cost per lb., 5.4¢. 24½ lb., 95¢. Good dough, very strong.
- Ceresota** (Standard Milling Co., Chicago). Unbleached, enriched. 5 lb., 27¢; cost per lb., 5.4¢. 24½ lb., \$1.10. Good dough, strong, springy. Best for bread and yeast-leavened cake.
- Occident** (Russell-Miller Milling Company, Minneapolis). Bleached, enriched. 5 lb., 27¢; cost per lb., 5.4¢. 24½ lb., \$1.10. Very good, strong, springy dough. Best for bread and yeast-leavened cake.
- Gold Medal** (General Mills, Inc., Minneapolis). Unbleached, enriched. 1¼ lb., 7¢; cost per lb., 5.6¢. 24½ lb., \$1.17. Good dough, fairly strong.
- Kitchen Craft** (Famous Flours, Inc., Omaha). Unbleached, enriched. 3½ lb., 20¢; cost per lb., 5.7¢. Good, strong, spongy dough.
- Red & White** (Red & White Corp., Chicago). Bleached, enriched. 5 lb., 30¢; cost per lb., 6¢. 24½ lb., \$1.15. Good, strong dough.
- Lily White** (Macy's, NYC). 3½ lb., 22¢; cost per lb., 6.3¢. 24½ lb., \$1.22. Good dough, very strong. Best for bread and yeast-leavened cake.
- Vim** (Vim Flour Mills, Inc., NYC). Unbleached; wheat germ enriched. 1¼ lb., 8¢; cost per lb., 6.4¢. Good, strong dough.
- Hazel** (National Tea Co., Chicago). Bleached. 2 lb., 13¢; cost per lb., 6.5¢. 24½ lb., 85¢. Good, strong dough. Best for bread and yeast-leavened cake.
- Royal Scarlet** (R. C. Williams & Co., NYC). 3½ lb., 25¢; cost per lb., 7.1¢. Good, spongy dough.
- Pillsbury's Best** (Pillsbury Flour Mills, Springfield, Ill.). Unbleached, enriched. 1¼ lb., 10¢; cost per lb., 8¢. 24½ lb., \$1.17. Good, strong dough.

(Continued next page)

ACCEPTABLE—CONT'D

Krasdale (A. Krasne, Inc., NYC). Unbleached. 1½ lb., 10¢; cost per lb., 8¢. Excellent, spongy dough.

Pocono (Grand Union Co., NYC). Bleached. 1½ lb., 11¢; cost per lb., 8.8¢. 2½ lb., \$1.15. Good dough, firm, plastic, flaky.

Hecker's Superlative (Standard Milling Co., Chicago). Unbleached, enriched. 1½ lb., 12¢; cost per lb., 9.6¢. 2½ lb., \$1.17. Good, strong dough.

CAKE FLOURS**BEST BUYS**

The following brands of the "Acceptable" list were judged to offer the best value for the money. For full details, see listings under "Acceptable."

Co-op. 5 lb., 30¢; cost per lb., 6¢.

Hazel. 3 lb., 15¢; cost per lb., 5¢.

White Spray. 2½ lb., 15¢; cost per lb., 5.5¢.

Gold Seal. 2½ lb., 16¢; cost per lb., 5.8¢.

ACCEPTABLE

(In order of increasing cost per lb., but see comments)

Hazel (National Tea Co., Chicago). Bleached. 3 lb., 15¢; cost per lb., 5¢. Good dough, stiff, plastic, flaky.

White Spray (First National Stores, Somerville, Mass.). Bleached. 2½ lb., 15¢; cost per lb., 5.5¢. Very good dough, short, plastic, flaky.

Gold Seal (American Stores Co., Philadelphia). Bleached. 2½ lb., 16¢; cost per lb., 5.8¢. Excellent dough, short, plastic, flaky.

Co-op (Eastern Cooperative Wholesale, Inc., NYC). Unbleached, enriched. 5 lb., 30¢; cost per lb., 6¢. Very good dough, firm, plastic, flaky.

Sunnyfield (A&P). Bleached. 2½ lb., 17¢; cost per lb., 6.2¢. Excellent dough, short, plastic, flaky.

Island Manor (H. C. Bohack Co., Inc., Brooklyn). Bleached. 2½ lb., 17¢; cost per lb., 6.2¢. Good dough, firm, plastic, flaky.

Country Club (Kroger Grocery & Baking Co., Cincinnati). Bleached. 2½ lb., 17¢; cost per lb., 6.2¢. Very good dough, short, plastic, flaky.

ACCEPTABLE—CONT'D

- Freshbake** (Grand Union Co., NYC). Bleached. $2\frac{3}{4}$ lb., 19¢; cost per lb., 6.9¢. Very good dough, short, plastic, flaky.
- Ecco** (Economy Grocery Stores, Boston). Bleached. $2\frac{3}{4}$ lb., 25¢; cost per lb., 9.1¢. Excellent dough, short, plastic, flaky.
- Sno Sheen** (Pillsbury Flour Mills Co., Springfield, Ill.). Bleached, $2\frac{3}{4}$ lb., 25¢; cost per lb., 9.1¢. Good dough, firm, plastic, flaky.
- Softasilk** (General Mills, Inc., Minneapolis). Bleached. $2\frac{3}{4}$ lb., 27¢; cost per lb., 9.8¢. Very good dough, firm, plastic, flaky.
- Swans Down** (Ingleheart Bros., Inc., Evansville, Ind.). Bleached. $2\frac{3}{4}$ lb., 29¢; cost per lb., 10.5¢. Good dough, stiff, plastic, flaky.
- Presto** (Hecker Products Corp., Buffalo). Bleached. Self-rising. $1\frac{1}{4}$ lb., 15¢; cost per lb., 12¢. Very good dough, short, plastic, flaky. (See comment in article on self-rising flours.)

NOT ACCEPTABLE

- Red & White** (Red & White Corp.). Bleached. $2\frac{3}{4}$ lb., 26¢; cost per lb., 9.5¢. Protein content too high for good cake flour.

PANCAKE FLOURS—READY MIXED**• BUCKWHEAT TYPE****BEST BUYS**

The following brands of the "Acceptable" list were judged to offer the best value for the money. For full details, see listings under "Acceptable."

Sunnyfield. $1\frac{1}{4}$ lb., 7¢; cost per lb., 5.6¢.

Harvest Time. 4 lb., 24¢; cost per lb., 6¢.

ACCEPTABLE

(In order of increasing cost per lb., but see comments)

Sunnyfield (A&P). Buckwheat, wheat, corn. $1\frac{1}{4}$ lb., 7¢; cost per lb., 5.6¢. Good batter and flavor; baked well.

Harvest Time (Pillsbury Flour Mills Co., Springfield, Ill.). Buckwheat, wheat, corn. 4 lb., 24¢; cost per lb., 6¢. Batter thick, good. Medium dark cakes, very good rise, excellent flavor.

Hazel (National Tea Co., Chicago). Buckwheat, wheat, corn.

(Continued next page)

ACCEPTABLE—CONT'D

- 1½ lb., 9¢; cost per lb., 7.2¢.** Good batter and flavor; baked well.
- Co-op** (Co-operative Mills, Inc., Auburn, Ind.). Buckwheat, wheat. 2 lb., 15¢; cost per lb., 7.5¢. Good batter and flavor; baked well.
- Red & White** (Red & White Corp., Chicago). Buckwheat, wheat, corn. 1½ lb., 10¢; cost per lb., 8¢. Good batter, wheaty flavor; baked well.
- Aunt Jemima** (Quaker Oats Co., Chicago). Buckwheat, wheat, corn. 1½ lb., 13¢; cost per lb., 10.4¢. Good batter and flavor; baked very well.
- Pillsbury's** (Pillsbury Flour Mills Co., Springfield, Ill.). Buckwheat, wheat, corn. 1½ lb., 15¢; cost per lb., 12¢. Good batter and flavor; baked very well.
- White Spray** (First National Stores, Inc., Somerville, Mass.). Buckwheat, wheat. 1½ lb., 15¢; cost per lb., 12¢. Good batter and flavor; baked very well.

NOT ACCEPTABLE

- Asco** (American Stores Co.). Buckwheat, wheat, corn. 1½ lb., 7¢; cost per lb., 5.6¢. Batter fair, bakenings coarse in texture, tough; protein content too high.

• WHITE PANCAKE MIXTURES**BEST BUYS**

The following brands of the "Acceptable" list were judged to offer the best value for the money. For full details, see listings under "Acceptable."

- Asco.** 1½ lb., 5¢; cost per lb., 4¢.
- Sunnyfield.** 1½ lb., 5¢; cost per lb., 4¢.
- Harvest Time.** 3 lb., 14¢; cost per lb., 4.7¢.
- Freshpak.** 1½ lb., 6¢; cost per lb., 4.8¢.
- Country Club.** 1½ lb., 6¢; cost per lb., 4.8¢.

ACCEPTABLE

(In order of increasing cost per lb., but see comments)

- Asco** (American Stores Co., Philadelphia). Wheat, corn, rice, rye. 1½ lb., 5¢; cost per lb., 4¢. Good batter and flavor; baked well; good waffle flour.
- Sunnyfield** (A&P). Wheat, corn, rice, rye. 1½ lb., 5¢; cost per lb., 4¢. Good batter and flavor; baked very well; rather high protein.

ACCEPTABLE—CONT'D

Harvest Time (Pillsbury Flour Mills Co., Springfield, Ill.). Wheat, corn, rice. 3 lb., 14¢; cost per lb., 4.7¢. Good batter; dark cream color, good rise, very good flavor.

Freshpak (Grand Union Co., NYC). Wheat, corn, rice, rye. 1½ lb., 6¢; cost per lb., 4.8¢. Very good batter, good flavor; baked very well.

Country Club (Kroger Grocery & Baking Co., Cincinnati). Wheat, corn, rice, rye. 1½ lb., 6¢; cost per lb., 4.8¢. Good batter and flavor; baked very well.

Hazel (National Tea Co., Chicago). Wheat, corn, rice, rye. 1½ lb., 7¢; cost per lb., 5.6¢. Very good batter, good flavor; baked very well.

Victor (Crete Mills, Crete, Nebr.). Wheat, corn, rice. Cost per lb., 6¢. Good batter and flavor; baked well.

Island Manor (H. C. Bohack Co., Inc., Brooklyn). Wheat, corn, rice. 1½ lb., 10¢; cost per lb., 8¢. Good batter and flavor; good waffle flour.

Aunt Jemima (Quaker Oats Co., Chicago). Wheat, corn, rice, rye. 1½ lb., 11¢; cost per lb., 8.8¢. Good batter and flavor; baked very well.

Pillsbury's (Pillsbury Flour Mills Co., Springfield, Ill.). Wheat, corn, rice, rye. 1½ lb., 12¢; cost per lb., 9.6¢. Light batter, good flavor; baked very well; good waffle batter.

The following flours, though "Acceptable," do not compare with the above in quality.

White Spray (First National Stores, Inc., Somerville, Mass.). Corn, wheat. 1½ lb., 5¢; cost per lb., 4¢. Very light batter, somewhat doughy.

Co-op (Midland Co-operative Wholesale, Minneapolis). Wheat, corn, rye. 3½ lb., 21¢; cost per lb., 6¢. Batter thin, fair; made cream yellow pancakes, average rise, good flavor.

Red & White (Red & White Corp., Chicago). Wheat, corn, rice. 1½ lb., 10¢; cost per lb., 8¢. Fair batter, somewhat tough.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Reread them now and then.

FRESH FRUITS AND VEGETABLES

In buying fresh fruits and vegetables, study the market. Daily broadcasts or newspaper items in many large cities tell which fruits and vegetables are in season and which are the best buys. "Victory Specials," are plentiful foods listed by the Dep't of Agriculture. By keeping track of seasons and the produce coming from nearby areas, you can keep down your fruit and vegetable budget and still have variety throughout the year.

Here are some suggestions for buying fresh fruits and vegetables:

1. Make your own selection. While canned and packaged goods can safely be ordered by phone, personal inspection is necessary to ensure getting good quality in perishable foods.
2. Avoid unnecessary handling. Rough handling increases spoilage, for which the consumer must ultimately pay.
3. Purchase by weight whenever possible. Remember that the largest is not necessarily the best quality, nor does it suit every purpose.
4. Buy the quantity that will be most economical. Some fruits and vegetables must be used immediately. Others can be kept for long periods, with or without refrigeration. If you have storage space, you can make great savings by buying these in quantity.
5. Make sure that containers hold full measure. Many fruits and vegetables not sold by weight are packed loosely, or in containers of deceptive sizes and shapes. Look beneath the surface. The top layer may look fine, while the pieces beneath are of poor quality.

• FRESH FRUITS

Apples. Season: one type or another can be obtained throughout the whole year. There are about 500 varieties on the market.

Favorite cooking apples have a slightly tart taste (*Wealthy, Jonathan, Willow Twig* and *Rome Beauty*). *Grimes Golden, Delicious*, and *Stayman Winesap* are excellent dessert apples. Avoid soft, mealy, overripe, tough-skinned apples, or those with bruised or browned surfaces. Best buys are those of medium size, rather than very small or very large ones.

Apricots. Season: June through August. Should be plump, fairly firm, uniformly golden-yellow in color. Greenish-yellow

apricots are unripe and lack flavor. Shrunken or shriveled fruit has been stored too long, and usually tastes insipid. Avoid mushy or bruised apricots as they deteriorate rapidly.

Bananas. Season: all year (to the extent that shipping permits). For eating, select yellow fruit with brown flecks. For cooking, solid yellow, or yellow with green tips is satisfactory. Slightly green fruit ripens in a few days at room temperature. Bruised bananas, those with badly discolored skin, or ones showing mold on the darkened portions are poor buys.

Blackberries, Dewberries, Loganberries, Raspberries. Seasons vary locally. Plump berries, bright, clean and fresh in appearance, with solid, full color are best. Dull color, softness and leakiness indicate that berries are overripe. Berries with caps attached are generally immature. Examine bottom layers of the containers before buying to make sure that quality is uniform throughout.

Blueberries, Huckleberries. Season: June, July. Look for ripe fruit, uniform in size, with firm, fresh color. Avoid shriveled, soft, watery or moldy fruit.

Cherries. Season: May through August. Should be plump, firm, and well-colored for the variety. Stale cherries are dull, shriveled, sticky and leaky. Break open one or two cherries before buying, for worminess usually runs in lots.

Cranberries. Season: Fall through Winter. Select shiny, firm, plump berries. The small dark ones are likely to be sweeter than the large, bright red type. Moist cranberries are not necessarily bad, but avoid ones which are sticky, leathery or tough, with discolored flecks.

Grapefruit. Season: October to May. Grapefruit which is heavy for its size is usually more juicy and thinner skinned than lightweight grapefruit. Flesh should be firm and springy, rather than wilted or flabby. Russetting (reddish-brown coloring on the skin) and surface defects like scratches, scale, scars, or thorns affect appearance but not eating quality; such fruit may often sell at a lower price. Avoid fruit with decayed areas which often appear at the stem end of the fruit. Fruit pointed at the stem end is likely to be thick skinned, and a poor buy.

Grapes. Season: July to December. There are two types, the thin-skinned Western or European (*Emperor, Flame, Tokay, Malaga, Thompson Seedless*) and the Eastern or American (*Catawba, Delaware, Concord, Niagara*), which are thick-

skinned, and in which the skin separates readily from the pulp. Western grapes are best for eating; Eastern ones are much used for home made jelly, juice and wine.

Fresh, plump grapes, firmly attached to the stems, are best. The stem end of the grape should not show signs of decay or mold, and the stems should not be dry or brittle. Avoid grapes which are sticky or leaky.

Most white or green grapes are best for eating when they are turning to amber color, although the seedless variety is ripe when green. For making jelly, select grapes which are not quite ripe; grapes for juice should be mature, and those used for wine should be somewhat overripe.

Lemons. Season: all year. Look for lemons heavy for their size, with fine-textured skin. Deep yellow colored lemons give more juice, are often less tart. Shriveled, hard-skinned, soft or spongy fruit is poor; discoloration at the stem end indicates decay.

Melons. Season: May through October. (Casaba, cantaloupe, honeydew, honey ball, Persian, watermelon.) For melons other than watermelon, full color and distinctive, characteristic odor are indications of ripeness. If the blossom end smells sweet and is soft when pressed gently, the melon is usually ripe.

The netting on the rind of a good cantaloupe is coarse, and stands out. If the scar on the stem end of the melon is sunken and calloused, the melon was picked when ripe, rather than ripened in storage, and should be of superior quality. Thin netting indicates that the melon is not sweet.

Large watermelons are generally superior to small ones, and have a much higher proportion of flesh to rind. A ripe watermelon has rich green color, except on the underside, where it is yellow (not pale green). The most certain test for ripeness is removal and examination of a "plug," which should be crisp, free from fibers, and ripe, not dry or mealy. The chief watermelon season is July through September in most states.

Oranges. Season: all year. Firm, heavy oranges with fine-textured skins are best. Surface blemishes do not affect quality. Different varieties, from various parts of the country, are in season at different times of the year. For economical buying, shift from one variety to another as the season changes. Color in oranges is no indication of ripeness, since practically all on the market are artificially colored, either through use of ethylene gas, or by dyeing.

Peaches. Season: June through September. Both yellow and white varieties are grown as freestone and cling. Freestone is most popular for home use; clings are generally canned commercially. White fleshed peaches, when ripe, have lost the green color characteristic of unripeness, and have some red "blush." The fruit is firm, but not hard. Overmature or soft peaches are good only for immediate consumption. Bruised fruit is wasteful and undesirable. Worm injury can frequently be detected by the uneven form of the peach, and from small punctures through which gum exudes. Decay in peaches, shown by brown spots, spreads very rapidly, often causing complete loss of the fruit.

Pears. Season: July through November. Should be fairly firm, but not hard. Color of ripe fruit depends on the variety. Pears slightly soft at the base of the stem are mature and satisfactory for immediate consumption, but cannot be stored. Superficial discoloration, caused by "scald," does not affect flavor.

Pineapples. Season: April through September. Good pineapples are heavy for their size, with dark, orange-yellow color. Eyes should be flat, or slightly hollow. Odor should be strong and characteristic. Plump, square fruit is more economical than the tapering kind. To judge ripeness, pull out a leaf at the top; it should come off easily.

Plums and Prunes. Season: June through September. Color is no indication of ripeness unless one is familiar with varieties. Plums and prunes of good quality are plump, fresh-looking, full-colored, and soft enough to yield to pressure. Hard or shriveled fruit is immature; soft, leaky fruit is generally overripe.

Strawberries. Season: December through September. Should look fresh, bright, solid red. Size is no indication of quality, although large berries are generally higher priced. The cap should be attached to the fruit; capless and leaky berries are usually overripe. Presence of mold indicates decay. Look underneath the top layer in the container, to check uniformity of quality.

• FRESH VEGETABLES

Asparagus. Leaves at the head of the stalk should be tightly folded. If the bottoms are dry or the stalks have holes running along their length, the asparagus is not fresh. Fresh asparagus is quite pliant, and breaks with a snap.

(Continued next page)

String Beans. Pods should be silky and flat, so that the beans inside hardly show. They should break with a crisp snap. Ridged, swollen, shriveled or wilted pods are not fresh.

Beets. Beet roots should be red throughout. If they are purchased in bunches, get beets with fresh, green, leafy tops, which can be used as greens. Medium-sized ones with smooth skins are the best buys. Too large, rough, ridged, or scarred beets are apt to be tough.

Broccoli. A good bunch should not contain an excessive amount of coarse leaves, stems, or flowers from side branches. Make sure that you get the center heads, which should be compact and green, with no yellow tint, and with crisp, short stems. In old broccoli, the head shows a tendency to spread.

Cabbage. There are four important varieties on the market: Danish—Firm, compact, light green in color (Winter type).

Domestic—Darker than the Danish. The early type has loose outer leaves.

Red—Much stronger flavor than the other varieties.

Savoy (Curly)—Leaves fluted at edges. Flavor pungent.

Select only crisp, solid, heavy cabbage, without yellow tinted leaves. The veins on the leaves should be solid and white.

Carrots. Young tender carrots are generally bunched, with the tops left on. The color should be a uniform golden orange, without green at the stem end. Large carrots are apt to be tough. Carrots should not be shriveled nor have "whiskers."

Cauliflower. The heads should be white and solid, surrounded by crisp, green leaves. Avoid spreading flower clusters.

Celery. White, or blanched, celery is generally preferred, but green celery has a higher vitamin content. Celery should be firm. The parallel grooves along the stalks should not be too far apart, and the stalks should be fleshy, not thin or flat. Examine the "heart" to see that it is large, and free of bleach rot (a brownish, moist condition).

Corn. The white varieties mature before the yellow "Golden Bantam" type. Good corn should have fresh, green husks, and silk that ranges from golden to dark brown. Field corn, of inferior flavor, can be recognized by the fact that there is little if any silk visible.

Cucumbers. The best ones are dark green, with no yellowish tinge. They should be firm, young, spiny, comparatively slender, and from six to eight inches in length. Avoid cucumbers which are spongy or soft.

Lettuce. The New York (iceberg) variety should be solid,

and pea green or lighter in color. If the outside leaves are wilted or rusty, there is considerable waste. Boston lettuce has a softer head than iceberg. Romaine lettuce has coarse, elongated leaves. Lettuce should be crisp, and the heads should be firm.

Lima Beans. Fresh lima beans are better when bought in the pod than when shelled. The pods should be dark green, plump and well-filled. Old beans, usually tough and of poor flavor, may be recognized by shrunken, flabby, or yellowish pods.

Mushrooms. Fresh mushrooms have a white or creamy color. They are firm to the touch, without being either dry or rubbery. The veil on the under side should be unbroken, and should have a pinkish color. Spotting of the mushrooms is indicative of decay. The short stemmed type is generally the best (and most expensive), but the long stemmed variety is satisfactory for creaming and for soups.

Onions (dry). There are many varieties of onions; those with yellow skin are most widely used. In appearance they should be thin necked, dry skinned, and firm fleshed, and there should be no indication of sprouting.

Peas. Look for bright green pods, full and brittle. The peas should be well shaped, firm and unsprouted. Remember that a pound of peas, as purchased, may yield as little as $\frac{1}{4}$ pound.

Potatoes. Look for uniformity in size and shape. If there are many deep eyes present, waste will result. The color of the cut surface should be creamy yellow; a deep yellow potato is not likely to cook well. Potatoes should be sound, smooth and firm; not knobby, scabby, or misshapen.

Sweet Potatoes. These should be smooth, plump and chunky, tapering at both ends. Avoid excessively large ones or those to which rootlets are attached.

Spinach. There are two varieties, crinkly and flat. In either, the leaves should be a deep uniform green, and reasonably free from sand. Poor quality spinach may have yellow or withered leaves and woody stalks, and may also contain weeds.

Tomatoes. Select tomatoes which are firm, solid, and free from deep grooves. When cut, the seed and the flesh portions should hold together as a firm mass. Avoid excessively large tomatoes, or those which are misshapen, ribbed, scarred, yellow, or wrinkled.

FROZEN FOODS

Frozen foods are specially processed by rapid freezing and stored at temperatures near 0°F. (Do not confuse them with cold storage foods.) The best frozen foods are about as good in flavor, appearance and nutritive value as fresh foods. Frozen vegetables are more convenient to prepare than fresh ones. Frozen foods also have better vitamin-retention, color and flavor than canned goods, and at present some frozen foods are less expensive than the canned variety. However, in general, they cost more than either canned food or fresh food in season.

Frozen Vegetables: Peas and corn are better than the fresh products unless the latter are fresh picked. String beans, lima beans and spinach, when cooked, are almost indistinguishable from the fresh products. Cauliflower is satisfactory. Green beans are generally good if tender beans, free from fibrous tissues, were selected for freezing. Asparagus may collapse badly on thawing, but after cooking it compares favorably in appearance and flavor with cooked fresh asparagus. Vegetables usually eaten raw, such as lettuce, tomatoes, cucumbers and onions, do not freeze well.

Frozen Fruits: Nearly all frozen fruits now on the market are good in quality.

Frozen Meats: Generally good, although in most cases fresh meat is likely to be a better buy.

Frozen Poultry: Generally good, far superior to "cold storage."

Frozen Fish: Better than most fish, except when purchased near seaboard. Unfrozen fresh fish deteriorates rapidly.

From the *Reports*, January 1940 and August 1941.

GELATIN DESSERTS

Gelatin makes a pleasant and inexpensive dessert, but claims that it will relieve fatigue have no basis (see p. 187). Most of the food value of gelatin desserts is in the sugar and fruit juices they contain.

A good grade of plain gelatin should have little or no gluey odor when dissolved in hot water. Once prepared, gelatin desserts should be kept under refrigeration, since they are an ideal medium for bacterial growth.

Gelatin can be purchased either plain or prepared. Plain gelatin is a concentrated powder without flavor, to which sugar and fruit juice, fruit or other flavoring material must be added to make a dessert. A pint of dessert (six servings) requires one-quarter ounce of plain gelatin.

Prepared gelatin powders contain only about 10% gelatin; 80%-90% sugar plus small amounts of citric acid, coloring and flavoring materials make up the remainder. One pint of dessert requires a $3\frac{1}{4}$ oz. package of prepared gelatin.

Costs for 6 servings are given in the ratings. In the case of plain gelatin this does not include the sugar and fruit juices that must be added; the latter may make home-prepared desserts slightly more expensive, but they yield a better-tasting and more healthful food. Ratings are based on laboratory tests comparing such factors as gelatin content, jelly strength, acidity, flavor, odor.

From the *Reports*, May 1941.

PREPARED DESSERT POWDERS

Price given in each case is for three cartons. Contents of each package are $3\frac{1}{4}$ oz. This will make a pint of dessert sufficient for six average servings.

BEST BUY

Jell-O (General Foods Corp., NYC). 14¢; cost per 6 servings, 4.7¢. Highest quality tested.

ALSO ACCEPTABLE

(In order of quality without regard to price)

Grisdale (Gristede Bros., NYC). 17¢; cost per 6 servings, 5.7¢.

Plee-Zing (Plee-zing, Inc., Chicago). 15¢; cost per 6 servings, 5¢.

Royal (Standard Brands, NYC). 14¢; cost per 6 servings, 4.7¢.

IGA (Independent Grocers Alliance, Chicago). 15¢; cost per 6 servings, 5¢.

Dainty Jell (First National Stores, Somerville, Mass.). 10¢; cost per 6 servings, 3.3¢.

Reeves' Best (Daniel Reeves, NYC). 11¢; cost per 6 servings, 3.7¢.

Lily White (R. H. Macy & Co., NYC). 15¢; cost per 6 servings, 5¢.

(Continued next page)

ALSO ACCEPTABLE—CONT'D

- Co-op** (National Cooperatives, Chicago). 14¢; cost per 6 servings, 4.7¢.
- Par-T-Jel** (Dessert Mfg. Co., Toledo, Ohio). 10¢; cost per 6 servings, 3.3¢.
- Twinkle** (Kroger Grocery & Baking Co., Cincinnati). 15¢; cost per 6 servings, 5¢.
- Hazel** (Nat'l Tea Co., Chicago). 14¢; cost per 6 servings, 4.7¢.
- Ann Page** (A&P, NYC). 13¢; cost per 6 servings, 4.3¢.
- Flav-R-Jell** (Red & White Corp., Chicago). 15¢; cost per 6 servings, 5¢.
- Freshpak** (Grand Union Co., NYC). 13¢; cost per 6 servings, 4.3¢.
- Premier** (F. H. Leggett Co., NYC). 10¢; cost per 6 servings, 3.3¢.
- White Rose** (Seeman Bros., NYC). 13¢; cost per 6 servings, 4.3¢.
- Royal Scarlet** (R. C. Williams Co., NYC). 18¢; cost per 6 servings, 6¢.
- Asco** (American Stores Co., Philadelphia). 11¢; cost per 6 servings, 3.8¢.
- Richelieu** (Sprague, Warner & Co., Chicago). 15¢; cost per 6 servings, 5¢.
- Lovely Jell** (General Dessert Corp., NYC). 10¢; cost per 6 servings, 3.3¢.
- Radio** (Roulston's, NYC). 10¢; cost per 6 servings, 3.3¢.

PLAIN GELATIN POWDERS**BEST BUY**

Ann Page (A&P, NYC). 1-oz. package, 9¢; cost per 6 servings, 2.3¢. Highest quality tested, and among lowest priced.

ALSO ACCEPTABLE

(In order of quality without regard to price)

- Epicure** (S. S. Pierce Co., Boston). 1½-oz. package, 19¢; cost per 6 servings, 4.8¢.
- Lily White** (R. H. Macy & Co., NYC). 1-oz. package, 16¢; cost per 6 servings, 4¢.
- Asco** (American Stores Co., Philadelphia). 1½-oz. package, 15¢; cost per 6 servings, 2.5¢. American Stores Co. has discontinued this brand, and replaced it with *Princess Brand*.

ALSO ACCEPTABLE—CONT'D

- (not available at the time CU made its tests) which sells for 9¢ per oz.
- Monarch** (Reid, Murdoch & Co., Chicago). 1-oz. package, 15¢; cost per 6 servings, 3.8¢.
- Plymouth Rock** (Plymouth Gelatine Co., Boston). 1-oz. package, 12¢; cost per 6 servings, 3¢.
- Knox** (Charles B. Knox Gelatine Co., Johnstown, N. Y.). 1-oz. package, 18¢; cost per 6 servings, 4.5¢.
- Cox's** (Cox Gelatine Co., NYC). 1½-oz. package, 17¢; cost per 6 servings, 2.8¢.
- Co-op** (Eastern Co-operative Wholesale, NYC). 4-oz. package, 21¢; cost per 6 servings, 1.3¢.
- White Rose** (Seeman Bros., NYC). 1-oz. package, 15¢; cost per 6 servings, 3.8¢.
- Peter Cooper's** (Peter Cooper's Gelatine Co., Gowanda, N. Y.). 1½-oz. package, 13¢; cost per 6 servings, 2.2¢.

ICE CREAM MIXES

Some ice cream frozen at home in a mechanical refrigerator with prepared mixes has excellent flavor, but none compares in consistency with commercial ice cream, according to taste tests conducted with 20 members of CU's staff.

Tasters immediately identified samples of commercial ice cream included in the test batches, even though they had not been told that such samples would be included.

Costs of the mixes were based on the following retail prices: ½ pt. cream, 19¢; 1 qt. milk, 14¢; 13 oz. can of evaporated milk, 8¢. Comparative cost per serving was based on 4 oz. portions—a rather generous serving for commercial ice cream but normal for home-prepared ice cream, since the latter can't be whipped up to the same volume for a given weight. For purposes of comparison the cost of commercial ice cream was computed at 35¢ a pt. (17.5¢ for a 4 oz. serving).

From the *Reports*, September 1941.

CHOCOLATE MIXES**GOOD**

(In order of preference)

- Lily White** (R. H. Macy & Co., NYC). 33¢. 7.2¢ per 4 oz. serving. Liquid. No additional ingredients required.

(Continued next page)

GOOD—CONT'D

Ann Page Sparkle (A&P, NYC). 4¢. 5.3¢ per 4 oz. serving. Powder; required addition of 1 cup each of milk and cream.

Royal Chocolate Pudding (Standard Brands, Inc., NYC). 5¢. 6.2¢ per 4 oz. serving. Powder; required addition of sugar, 1 pt. milk and ½ pt. cream.

FAIR

(In order of preference)

Midco (Jos. Middleby, Jr., Inc., Boston). 10¢. 6.5¢ per 4 oz. serving. Liquid; required addition of ½ cup milk and ½ pt. cream.

Ready-To-Freeze (Sterilized Products Corp., NYC). 33¢. 7.3¢ per 4 oz. serving. Liquid; required no added ingredients.

POOR

(In order of preference)

Junket (Chr. Hansen's Lab., Inc., Little Falls, N. Y.). 8¢. 6.3¢ per 4 oz. serving. Powder; required addition of 1 cup each of milk and cream.

Jell-O (General Foods Corp., NYC). 8¢. 6.3¢ per 4 oz. serving. Liquid; required addition of ½ cup milk and ½ pt. cream.

Wonder-Freeze (Ice Cream Products, Inc., Chicago). 6¢. 3¢ per 4 oz. serving. Powder; required addition of sugar, ½ cup milk and 1 can evaporated milk.

Mrs. Morrison's (The Morrison Co., Philadelphia). 10¢. 7.7¢ per 4 oz. serving. Powder; required addition of ½ cup milk and 1 pt. cream.

VANILLA MIXES**GOOD**

(In order of preference)

Mrs. Morrison's (The Morrison Co., Philadelphia). 10¢. 7.7¢ per 4 oz. serving. Powder; required addition of ½ cup milk and 1 pt. cream.

Lily White (R. H. Macy & Co., NYC). 33¢. 7.2¢ per 4 oz. serving. Liquid; required no added ingredients.

FAIR

(In order of preference)

Jell-O (General Foods Corp., NYC). 8¢. 6.3¢ per 4 oz. serv-

FAIR—CONT'D

ing. Liquid; required addition of $\frac{1}{2}$ cup milk and $\frac{1}{2}$ pt. cream.

Ann Page Sparkle (A&P, NYC). 4¢. 5.1¢ per 4 oz. serving.

Powder; required addition of $\frac{1}{2}$ pt. each of milk and cream.

Junket (Chr. Hansen's Lab., Inc., Little Falls, N. Y.). 8¢.

6.4¢ per 4 oz. serving. Powder; required addition of $\frac{1}{2}$ pt. each of milk and cream.

Midco (Jos. Middleby, Jr., Inc., Boston). 10¢. 6.5¢ per 4 oz. serving. Liquid; required addition of $\frac{1}{2}$ cup milk and $\frac{1}{2}$ pt. cream.

Ten-B-Low (Ten-B-Low Co., Columbus, Ohio). 25¢. 4.6¢ per 4 oz. serving. Good taste but poor consistency. Liquid; required addition of water and vanilla flavoring.

POOR

(In order of preference)

Royal Vanilla Pudding (Standard Brands, Inc., NYC). 5¢. 6.2¢ per 4 oz. serving. Powder; required addition of sugar, 1 pt. milk and $\frac{1}{2}$ pt. cream.

Burnett's (Joseph Burnett Co., Boston, Mass.). 9¢. 6.2¢ per 4 oz. serving. Powder; required addition of $\frac{1}{2}$ pt. each of milk and cream.

NOT ACCEPTABLE

Ready-To-Freeze (Sterilized Products Corp.). 33¢. 7.2¢ per 4 oz. serving. Liquid; required no added ingredients. Rated "Not Acceptable" because two of five cans examined were found to be spoiled.

INFANT FOODS

Buying advice and brand ratings of infant foods will appear in the *Reports* early in 1943.

MAYONNAISE AND SALAD DRESSINGS

By Federal definition, mayonnaise must contain at least 50% vegetable oil, mixed with vinegar and a small amount of egg yolk or whole egg. Small amounts of salt, sugar and spices are sometimes added, and lemon juice is occasionally used in place of or in addition to the vinegar. "Salad dressings" contain less vegetable oil and often less egg; starch fillers, higher

vinegar content and often water are included to make up the deficiency. Consequently, the caloric value of salad dressing is about two-thirds that of mayonnaise.

Mayonnaise and salad dressing should be kept in the refrigerator to prevent spoilage, but they should not be kept next to the ice compartment, since freezing destroys the emulsion. If the oil separates, the product can be re-emulsified by beating up a pint of it, a little at a time, with one egg yolk. Keep these foods covered to prevent evaporation of the vinegar. Discard them if they develop a bad or rancid taste or odor, or if the cover bulges or "pops" when opened.

From the *Reports*, September 1939.

MEAT

By January 1, 1943, meat rationing is scheduled to be on a compulsory rather than a voluntary basis. Two and one-half pounds of beef, veal, lamb, mutton or pork a week are to be allowed per person. There are, however, many nutritious meats that are not to be rationed, including poultry, heart, liver, kidney, sweetbreads, brains and pigs' feet. Lards, rendering fat, raw leaf, casings, offal and oil also are not to be rationed. Canned meat is not being rationed, but the amount that may be canned for civilian use is subject to restrictions.

The present ration allows ample meat for any family if meals are planned with care. There are two simple ways of making your ration "stretch." The first amounts to "meatless" days, with substitutions of other high protein foods like fish, cheese and eggs. The other is to make use of unrationed meats at least one day a week.

Some of the little-used unrationed organs can be used for excellent and inexpensive dishes. Ask your butcher to get you lamb liver, for example. Many persons find it as tasty as calf liver and it is far less expensive. Liver and kidneys are rich in protein, iron and vitamins A and the B complex. Heart and brain are good sources of B vitamins.

In planning menus, remember that the less expensive meat cuts are just as rich in food value as the costly ones. Here are a few suggestions for economizing:

Concentrate on appetizing stews and pot roasts, for which you can use cheaper meat cuts. (*Beef*: shank, plate, brisket and neck for stew; chuck and heel of round for pot roast. *Veal*: heel, neck, breast, foreshank for fricassee; heel for pot

roast. **Lamb:** neck, shank, breast and flank for stew; leg and square chuck for roast. **Pork:** spareribs and neck bones for baking; loin butts or fresh ham for roasting.) If you have a pressure cooker, cheap soup meats can quickly and easily be converted into delicious and tender pot roasts.

A number of publications are available which will help you make your meat dollar go farther.¹

The best insurance that you're getting the quality of meat you pay for is to buy Government graded meat.

There are two sets of standards for grading meat. According to the older one, established by the Department of Agriculture, the best grade is Prime, followed by Choice, Good, Commercial and Utility. Such grading is carried out under the supervision of an Agriculture Department inspector, and can be recognized by the ribbon grading stamp which runs the entire length of the carcass, so that each cut will bear the grade mark.

Prime meat is rarely found in the shops, and only a small portion of the meat that reaches the market is Choice. About half is Good or Medium. Most persons find meat graded "Good" satisfactory. The better grades are more tender, but all grades are equally nutritious.

OPA has set up another set of grades as part of its scheme for controlling meat prices. OPA's AA grade corresponds to "Choice" meat; lower grades are A, B and C, respectively. The OPA grade mark is a single half-inch stamp on each wholesale cut. So far, government supervision is required by OPA only for the grading of AA meat. However, since the supervision is by Department of Agriculture Inspectors, many packers find it simpler to have the inspector grade all their meat with the ribbon grading stamp while he is in their plant.

Most meat sold today bears the round purple stamp, "U. S. INSP'D AND P'S'D." This is not an assurance of quality, but simply a guarantee that the carcass was subjected to sanitary inspection.

The following information will help you select good quality:

Beef. The exposed surface of good beef should be cherry red, and firm and fine-grained in texture, with little visible

¹ "Meat Dishes at Low Cost." U. S. Dep't of Agriculture, Misc. Publication No. 216. 5¢. For sale by Sup't of Documents, Washington, D. C.

"More Strength to Your Meat Dollar." Consumers Guide, Oct. 15, 1940. 5¢. For sale by Sup't of Documents, Washington, D. C.

"Cooking and Canning Meats." Circular 137. Free. North Dakota Agricultural College Extension Service, Fargo, N. D.

connective tissue. The bones should be pinkish white and porous. If the animal is old or its meat poor, the bones are flinty and white, the flesh soft, dark, and coarse-grained.

The fat should be evenly distributed over the outer surfaces of the cuts, and should be brittle, creamy white, and flaky. There should also be fat between the muscles, and along the connective tissue. A fine network of fat (marbling) should appear throughout the meat.

Veal. Good-quality veal should have flesh that is light pink, firm, moist, and fine-grained. Lighter meat is generally more tender. The fat, which should be white and smooth and not brittle, should be in a thin layer over the exterior of the meat. Within the meat, the fat should be pink. Veal, unlike beef, shows no marbling. Bones should be red, and soft enough to be sawed or cut easily without splintering.

Lamb and Mutton. Lamb has pink flesh, which becomes dull red when it reaches the mutton stage. The fat of the young lamb is pink, but becomes white as the animal grows older. Bones are soft and red in young animals, hard and white in older ones. Other characteristics are the same as those which indicate good quality in other meats.

Pork. You are not likely to find extremes of very good or very poor quality pork. The flesh should be firm and well marbled, and the color grayish pink. Hams should be short and plump; their skins smooth, thin, and free from hair pores. Plump, well proportioned pieces are the best quality. The grades of pork are No. 1 (best), No. 2, and No. 3.

Pork is frequently infested with the parasites (*trichinae*) which cause the disease called trichinosis. *Trichinae* can be killed in two ways: refrigeration at 5° Fahrenheit for 20 days, or thorough heating. The U. S. Department of Agriculture requires all packers who ship meat in interstate commerce to use the refrigeration process for pork products which are customarily eaten without further cooking. Such products include frankfurters, bologna, Vienna sausage, Summer sausage, cooked ham, and Italian style ham. But plants shipping from state to state represent only about 70% of the country's meat output, and the refrigeration requirement does not extend, even in those plants, to pork products which are customarily cooked.

The only protection, until there is adequate protective legislation, is to cook all pork products thoroughly. There should never be any pink tinge to properly cooked pork; it should be cooked until it is white clear through.

MILK

Unpasteurized milk, even if it is "certified," should not be relied on as safe to drink. (See the *Reports*, June 1942, for a discussion of brucellosis, a disease carried by raw milk products.) Since most of the milk supplied to consumers in the larger cities has been pasteurized, the occurrence of milk-borne diseases has been cut down considerably.

There is no universal system of milk classification throughout the country. Though some large cities still employ the two-grade system, based on bacterial counts, modern distributing and processing methods have rendered it obsolete, and the tendency is toward a safe single-grade milk.

In many communities where there is but one grade, milk is sold at different price levels depending on percentage of butterfat content. Before deciding which type of milk to buy, remember that one-tenth of one per cent butterfat amounts to about a thirtieth of an ounce of butter per quart, and that this quantity costs, in terms of average butter prices, less than one-tenth of a cent.

Homogenized milk, which is sold at a premium of several cents a quart, is simply milk in which the butterfat globules have been broken up and distributed evenly throughout the milk, so that there is no "cream line." There is no evidence that homogenized milk is any more nutritious or digestible for adults than ordinary milk. And for infants, evaporated milk (which is also homogenized) in proper dilution is much cheaper and just as good.

Many cities permit the sale of skim milk, which is fresh milk with only the butterfat removed. Skim milk sells at a country-wide average of almost 7¢ a quart less than whole milk, though the price varies greatly from city to city. It retains the bulk of milk's nutritive value in the form of minerals (calcium and phosphorus), the B vitamins and proteins, but lacks the vitamin A content of butterfat. At the lower price, many families should find it worth while to buy more milk in the form of skim milk, and then to increase proportionately their consumption of butter or fortified oleomargarine for an adequate supply of vitamin A.

Dry skim milk, available in some localities for 20¢ to 25¢ a pound, is also a satisfactory and very inexpensive form of milk solids. Its greatest use is in cooking. Since one pound of

dry skim milk can be diluted with water to make about five quarts of milk, this is generally the cheapest way to buy milk. If you cannot purchase dry skim milk at your grocer's (many cooperatives sell it), you may be able to buy it at a shop where baking is done.

Evaporated milk is ordinary milk from which about half of the water has been removed. Its composition is regulated by Federal standards. Diluted with an equal amount of water, evaporated milk is entirely comparable to fresh milk in food value, except for its lower vitamin C content. But this is unimportant, since even fresh milk is a poor source of vitamin C.

The price of evaporated milk is generally lower than that of fresh milk (it costs about 10¢ a quart at present); with a limited budget evaporated milk is a better buy for general use. For those who find the flavor objectionable, it can be masked by flavorings. Evaporated milk should always be used if fresh pasteurized milk is not available.

Much of the evaporated milk now on the market is "irradiated" or otherwise treated to increase its vitamin D value. Studies indicate that although the amount of vitamin D contained in such enriched milk is not enough to prevent or cure rickets in all cases, it makes a valuable contribution.

Sweetened condensed milk is somewhat more concentrated in solids content than is evaporated milk, and also contains large quantities of sucrose (cane or beet sugar) or dextrose (corn sugar). Except where the sugar is necessary for sweetening (icings, ice cream, &c.), evaporated milk is preferable.

For further information on milk, see the *Reports*, April and November 1939; February and June 1940; May and November 1941; June 1942.

POULTRY

In the purchase of poultry, the following rules may serve as a guide:

1. The breast should be broad and plump; the thigh, back, and bones should be covered with a thick layer of flesh. There should be streaks of fat along the back, breast, and thighs.

2. Young birds have breast bones with flexible tips; they have sharp claws and smooth, soft skin and feet. Older birds

have brittle, rough breast bones, coarse skins, and claws which are worn down. Long hairs on the skin are another indication of age.

3. Properly dressed birds have clean skins and feet. No food is present in the crop, and there are practically no pin feathers. There should be no bruises, broken skin or discoloration of the wings and tail.

4. Fowl dressed by dry-picking or slack scalding keeps longer than poultry which has been scalded with very hot water to remove the feathers.

5. The first signs of deterioration in poultry generally appear under the wings. Lift the wings and note whether the odor is sour or rancid, or if there are any signs of stickiness. If any of these are present, decomposition has begun, and the chicken should not be bought.

6. Be particularly wary about buying dressed fowl selling at somewhat less than prevailing market prices. Investigation in New York City has revealed that such poultry is often defective, and even decomposed. When you buy cheap poultry, be sure that the price has not been reduced for these reasons.

There are government grades for fresh-dressed poultry, although the large majority of the poultry sold is not graded. The U. S. grades are as follows: U. S. Special, or Grade AA; U. S. Prime, or Grade A; U. S. Choice, or Grade B; U. S. Commercial, or Grade C. Buy by grade whenever possible, keeping in mind that lower grades should cost less.

Federal health inspection of dressed poultry is not compulsory, but most of the frozen poultry on the market is inspected. Inspection is compulsory in some cities (you can check this with your local health department).

SOFT DRINKS

The base for all sparkling "soft drinks" is ordinary carbonated water ("soda water" or "club soda")—a solution of carbon dioxide gas under pressure in water. Water for carbonation must be clear, colorless, odorless, good to taste and should contain only proper kinds and amounts of minerals and should be free of suspended solid matter and undesirable microbes. Carbonation itself kills or inhibits many kinds of bacteria. There should be enough carbonation to give the water a good taste and fizz, and the fizz should be retained as long as possible after exposure to air.

(Continued next page)

76 SOFT DRINKS, SOUPS, FOOD STORAGE

Ginger ale is given its distinctive flavor and color by sugar, citric acid, ginger flavor and caramel color added to the carbonated water. Less sugar and more acid make a drier ginger ale. Though they have lower initial carbonation than sodas, most ginger ales retain their carbonation longer.

The main ingredients of cola drinks are extracts of the coca leaf (from which cocaine has previously been removed) and the cola nut, sugar, phosphoric acid, carbonated water and caramel color. Since the amount of sugar used in *Pepsi-Cola* has been cut down, the difference in taste among the dozens of cola drinks is scarcely detectable. *Coca-Cola* still has the dubious distinction of offering half as much for a nickel as the others.

From the *Reports*, June 1940, August 1940.

DEHYDRATED SOUPS

The scarcity of tin for canning has brought an increasing number of dehydrated soups to the market. As this book goes to press, tests are under way on many brands. The results, including brand ratings, will be published in the *Reports* early in 1943.

STORAGE OF FOODS

To save food, it is essential that you know how to store, as well as how to buy. For proper storage, follow these suggestions made by the U. S. Dep't of Agriculture.

You will need first a refrigerator or other very cold storage place, for all foods that spoil easily at room temperature. If you have a mechanical refrigerator, defrost it and wash the entire interior with warm water containing a little baking soda once a week. Also necessary are ventilated containers, scalded, sunned, and aired once a week for bread and cake; airtight, pestproof containers for dry staples; plenty of dry, airy cupboard space; cool, dry, dark storage for foods canned in glass and for onions and potatoes.

The following are the Dep't of Agriculture's specific suggestions for storing various kinds of foods:

• MEAT

Keep meat and poultry in the coldest part of the ice box

or your coldest storage place—45° F. or lower is best. It must be kept clean, cold and covered.

Fresh Meat: Cover fresh meat loosely. Wipe with damp cloth just before cooking. If the meat is ground, store it in an extra cool place and cook soon.

Meat Broth: Cool meat broth rapidly, keep cold, use soon.

Cooked Meat: Keep cooked meat covered. Chopped and sliced cooked meats spoil more quickly than meat in the piece. Cut or chop just before using. Keep meat sandwiches and salads cold right up to serving time.

Cured Meat: Keep uncooked, well-cured meat in a dark cool, dry, airy place. Leave wrapping on ham, bacon, and other cured meat until ready to cook. Store mildly cured meats in the same way as fresh meats.

Poultry: Wash poultry thoroughly inside and out, pat dry and store very cold until time to cook.

• SEA FOOD

Fish and all other sea food spoils in a few hours at room temperature. Cook at once, or wrap in wax paper to keep odor from other food, and store very cold.

• MILK AND EGGS

Milk: Don't let milk stand out. Keep it in the colder part of the refrigerator. When cooking, take out only milk and cream needed and let the rest stay cold. Don't pour left-over milk into a container of fresher milk. Put away milk the first thing after each meal. Keep odorous foods—fish, onion, cabbage, melons—away from milk. Use suds and sun on a milk containers. Scald often.

No single food is as important in the diet as milk. So buy milk in quantities large enough to meet the needs of your family and keep it in the best possible condition until use. Even dried milk keeps longer in the refrigerator, well covered. Keep opened condensed or evaporated milk there, too.

Milk and Egg Dishes: Milk and eggs are good combinations, but spoil easily. If custards, cream pies and puddings and cream puffs are not to be eaten at once, cool them quickly, cover, and keep very cold.

Cheese: Cold and covered, are the watchwords for cheese, too. Use cottage and other soft cheese quickly, for they soon spoil. Hard, cured cheese, well wrapped, may be kept longer.

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78 FOOD STORAGE

Eggs: Wipe off soiled spots on eggs with a dry, rough cloth. But don't wash eggs before storing. Water destroys the protective film that keeps out air and odors. Store eggs in open bowl or wire basket in a cool place.

• VEGETABLES

The fresher a vegetable when it is used, the better the taste, the less the waste, and the more vitamins retained.

For household storage of fresh vegetables, use refrigerator or other cold place.

Salad Greens: To crisp up lettuce, radishes, celery—all raw vegetables headed for the salad bowl—wash, drain, store in covered vegetable pan. Keep cold.

Cooking Greens: Pile cooking greens loosely to prevent bruising. Store in covered vegetable pan, or waterproof bag, preferably after washing and draining. Keep them cold.

Snap Beans, Limas, Peas, Corn: To hold the sweet in corn, peas, and lima beans and to keep snap beans fresh, keep them cold. Let them stay in the pod or husk unless you can store them tightly covered in refrigerator.

The Cabbage Family: Cauliflower, brussels sprouts, and broccoli lose freshness faster than cabbage. Leave them uncut; keep cold and not too dry.

Root Vegetables: Put beets, turnips, rutabagas, carrots in a cool ventilated place. Cut tops to 2 inches to save space.

White Potatoes, Onions: A dry, cool and dark place suits them both, but avoid freezing.

Sweet Potatoes, Squash: For sweet potatoes and squash, dry cool storage.

• FRUIT

Berries, Cherries, Grapes: To keep berries, cherries, and grapes fresh, store in a shallow tray in a cold place. Wash just before using.

Peaches, Pears, Plums: Spread to keep from bruising. Keep the ripe fruit cool. Let underripe fruits ripen at room temperature.

Oranges, Lemons: Spread out to prevent mold and rot. Keep in a cool place.

Apples: Apples soften as much in 1 day at 70° F. as in 10 days at 50° F.—so keep them at the cooler temperature.

Bananas: Bananas are best when kept at warmer tempera-

tures than our native fruits. Let underripe bananas ripen at room temperature.

Dried Fruits: The natural sugar in dried fruits keeps them from molding easily. Store them in a tight bag or jar in a cool place. Watch in warm weather for worms or weevils.

• OTHER FOODS

Bread: Cool home-baked bread before storing in ventilated box. In hot weather, to keep bread from molding, wrap in moistureproof paper and put in refrigerator.

Cake: Cool on rack before storing in its own covered box, ventilated if in humid climate.

Cookies: Crisp cookies and crackers soften if kept with bread and cake. Keep them in airtight tins or boxes.

Flour, Cereal, Sugar, Spice: Don't try to store much flour and cereal over the hot months—buy less and oftener. Store such dry foods as flour, cereal, sugar, spices in tight containers to keep out dust, moisture, insects, and mice.

Dried Vegetables: Mice and weevils are fond of dried vegetables, too. Keep dried vegetables in tight containers.

Canned Goods: Tinned foods should be kept dry to prevent rust and spoilage. Foods canned in glass should be stored in a cool dark place.

Quick-Frozen Foods: Quick-frozen foods must be kept frozen solidly in the freezing compartment of a mechanical refrigerator until used. Don't hold too long even at freezing. Once thawed, frozen foods spoil rapidly. Do not refreeze.

SUGAR AND SYRUPS

CU offers the following suggestions for stretching your sugar ration:

1. Use a syrup rather than sugar to sweeten iced beverages, since sugar dissolves poorly in them. One cup of water to 1½ cups of sugar will make a heavy syrup. Stir the mixture over a low flame until the sugar is dissolved, then boil for five minutes. Cool and store in a glass jar until needed. Instead of sugar you can use 2½ cups of corn syrup per cup of water.

2. Serve fresh fruits with little or no sugar, and use little or none in cooking dried fruits.

3. Save the syrup from canned fruits and use it to sweeten beverages, etc.

(Continued next page)

80 SUGAR, SYRUPS, TEA

4. When canning at home, replace part of the sugar called for in the recipe with corn syrup (see "Home Canning," page 42).

5. Select recipes for baking that call for molasses, sorghum, cane syrup or corn syrup. Be cautious about substituting these substances in recipes that call for sugar; frequently the proportions of other ingredients will be incorrect if sugar is not used. The added water content of syrups must be taken into account whenever they are substituted for sugar.

The following table gives the amounts of other sweeteners needed to give approximately the same sweetness as one cup of sugar:

| MOLASSES | CANE SYRUP | SORGHUM | CORN SYRUP |
|----------|------------|---------|------------|
| 1½ cups | 1½ cups | 1½ cups | 2 cups |

TEA

The amount of tea on the market in this country has been limited to 50% of the 1941 output. Green tea was frozen by the WPB early in September, with only the amount already packed in $\frac{1}{4}$ pound containers or less, or in tea balls or bags exempted. No action has yet been taken on black tea, but supplies are low, and rationing is likely.

Economize first by buying bulk tea rather than tea balls. Tea balls are expensive because you pay for the individual wrappings; they are wasteful because each ball contains more than is needed for a cupful.

To extract the maximum flavor, you should add hot water to loose tea and stir well, then strain off the leaves. Extracting the last bit of flavor does not impair the taste of tea, because all its constituents are easily soluble and dissolve at about the same rate. If you make several extractions from the same tea leaves, the last cup may be weaker, but the flavor will be nearly the same as the first.

You should learn to drink a weaker brew, and omit sugar or cream, since both reduce the flavor of tea. Instead, try a drop of lemon to bring out the flavor.

Save left-over tea. It can be chilled to make good iced tea or reheated to give nearly as palatable a drink as the original brew. It is also an excellent base for fruit punch.

The flavor of tea depends almost entirely on the type of leaves used, where they are grown and how they are prepared

before drying. Black teas, which have come mainly from China and Ceylon, are crushed, allowed to ferment and then dried. Pekoe and Souchong are common varieties. Green teas, which were imported mainly from Japan, are steamed before they are rolled and dried, which tends to make them more aromatic. Oolong tea, a product of Formosa, is darker than green tea, but similar in flavor and aroma. The choicest Oolong teas have special delicacy and bouquet. "Mixed" teas are blends of black and green or black and Oolong. The price of each type varies little except where packaging and advertising add to the cost of special brands.

From the *Reports*, August 1942.

Remember that the value of a product, whether it is a small private brand or a major nationally advertised brand, may change, and without any notice to the buyer. Substitutions of cheaper materials and increases in prices, particularly in these times, may alter relative ratings. The Buying Guide cannot record these changes; but frequently they will be covered in the regular monthly issues. Be sure to consult coming issues of the Reports for new ratings. Make sure, before any important purchase, that there are no more recent ratings of the product in the Reports.

Clothing and Textiles

Clothing prices rose 14% at retail during 1942. Complicated pricing techniques brought price increases, "upgrading" of low quality items to higher price lines and outright quality depreciation. Civilian supplies of wool and cotton fibers have been curtailed by wartime shipping conditions and by diversion to military and lend-lease requirements.

Silk and nylon are out for the duration, and rayon will probably follow. All top-grade sole leather goes to the armed forces, and wooden and other substitutes for leather soles have already (November 1942) appeared in women's shoes, though lower grade leather will continue to be available for civilian use. All-wool blankets are on their way out, and mixtures of wool and cotton and some rayon will be sold. Sheets are getting relatively scarce. Rationing of shoes and clothing and some textile items may be introduced in 1943 to conserve existing stockpiles.

WPB simplification orders for shoes and clothing have done nothing more than eliminate a few frills. But standardization and simplification of clothing and textile items are on the order of the day as shortages can no longer be ignored.

The critical shortage of rubber has brought more sparing use of rubberized materials and elastic in girdles, brassieres and foundation garments. Substitute materials are used for raincoats. Victory model rubbers and galoshes use reclaimed rubber. Metals and plastics are no longer available for zippers, snaps and hooks and eyes. Fur felts for men's and women's hats will soon be off the market, and it is unlikely that there will be much available in the way of straws. Women's hats will probably be made of almost anything that manufacturers can lay their hands on. And not many fur coats in the high price lines will be made.

BLANKETS

When old stocks are exhausted, all-wool blankets will be off the market. A Government order limits the maximum wool content of blankets to 80%, and few are actually being made with more than 76% wool. Cotton or rayon makes up the remainder. The wool labeling law requires manufacturers to state the fiber

content on the labels of blankets containing *any* wool.

All-wool or nearly all-wool blankets are warmest, and at least 25% wool is considered necessary to give a blanket any of the characteristics of wool.

Napping, closeness of weave and the kind of fiber used all affect the warmth and durability of a blanket.

Blankets are napped to provide more air traps and give better heat insulation. Too much napping, especially without strong basic weave, results in a weakly held nap and a weakened filling thread.

The nap of any part-wool blanket wears down comparatively quickly, unless the nap is all wool, so that the warmth of the blanket declines rapidly with use. Rayon fibers lack strength, and cotton has a short staple length in comparison with wool, so that the nap is less firmly anchored in the baseweave. If a cotton blanket is not napped or is only slightly napped, its durability may be improved, but then it will have poor warmth retention. The nap can be protected to some extent by keeping a blanket in a comforter cover.

Loosely woven blankets usually show poor resistance to wear in laundering. To determine tightness of weave, hold the blanket up to the light. Thin light spots indicate sleazy weaves and weakness. Blankets with strong basic weave and napping on both sides give the best service. Pull gently at the nap; also rub the surface briskly between the hands. If fibers come loose easily, short fiber length and excessive napping have probably produced a weak blanket.

Blanket bindings should be strong and washable. For pure serviceability cotton sateen ranks first, but it's no thing of beauty and it's seldom found on all-wool blankets of good quality. Pure dye silk (if available) will give good service. Tightly woven rayon is also satisfactory but it must be given special care in washing. Rayon becomes weak when wet. It is therefore important that rayons not be twisted during washing. Acetate rayons require the additional care of ironing with a warm—not hot—iron while the material is dry. Weighted silk bindings give poor service.

Blankets should be long enough to tuck in at the foot of the bed and to come up well over the shoulders (if they are short the constant pulling to get them over the shoulders will weaken and eventually tear them). They should be wide enough to cover the sides of the mattress. For length, measure the length

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and thickness of the mattress and add six inches for a tuck-in. For the width, measure the width of the mattress and add the depth of the two sides. This gives a minimum size. Allow a few extra inches both ways for shrinkage and for take-up by the body. Blankets come in 11 standard sizes ranging from 54 x 76 to 80 x 90. It is advisable to make an actual measurement before you buy.

"All-wool" blankets should weigh at least 12 ounces per square yard for good wear. If this weight is not on the label, you can find it by dividing actual measurement in square inches (length times width) by 1,296; then divide total weight in ounces by this figure.

From the *Reports*, November 1940, January and May 1941 (labor notes included), with added material.

BOYS' BLOUSES

Shirts with open necks and short sleeves are best for growing boys. They are more comfortable, and are not outgrown so quickly as those with buttoned-up collars and long sleeves. To get the best fit, measure neck, chest and sleeve length. Choose full-cut shirts made of firm, evenly woven materials that are fully shrunk and colorfast.

Further advice on buying boys' shirts and blouses is contained in a pamphlet put out by the Government: "Cotton Shirts for Men and Boys"; Farmers' Bulletin No. 1837, U. S. Dept. of Agriculture; available from Sup't of Documents, Washington, D. C. 5¢.

DIAPERS

Diaper service, disposable paper diapers or diaper pads are recommended for those who can afford them. Diaper service is the best of these and costs no more than the others. The fabric diapers it supplies are better than paper diapers.

If you cannot afford one of these conveniences, you will have to buy fabric diapers and launder them yourself. You'll need at least 3 dozen. You can get rid of most of the soil by swishing the diaper in the toilet bowl and flushing the toilet until the diaper is relatively clean. Then place it in an interlined can until you're ready to wash it.

You can choose among flannel, birdseye or gauze diapers. Flannel is softest and most absorbent, but it takes longest to dry, and the fuzzy nap may bother your baby. Birdseye diapers absorb less but dry faster; their pattern irritates some babies' skin. Gauze is least absorbent but fastest drying. Its relative stiffness may be too harsh. The best plan is to buy a few diapers of each fabric and see which causes the least chafing. If none bothers the baby, choose the type most convenient for you to use.

Ratings below were based on tensile strength, resistance to abrasion, loss of strength after boiling, and weight. Prices are given for a dozen diapers.

From the *Reports*, October 1941.

FLANNEL

ACCEPTABLE

(*In order of quality without regard to price*)

Simplifold (Broadway Dep't Store, Los Angeles). \$1.95.
Shaped to fit without bulky crotch. Extra heavy.

Super Twilled (Bullock's, Los Angeles). \$2.25. 27x28½. Extra heavy.

Ward's Cat. No.—3199 (Montgomery Ward). \$2.19 plus postage. 30x30. Napped on only one side giving better resistance to abrasion.

Baby Aristocrat (May Co., Los Angeles). \$2.25. 27x27.

Sears' Cat. No.—3091 (Sears-Roebuck). \$2.12 plus postage. 27x27.

Blue Diamond (Hearn's, NYC). \$1.98. 30x30.

Babycrest (Associated Merchandising Corp.¹). \$1.79. 30x30.

Macy's (R. H. Macy & Co., NYC). \$1.41. 30x30.

Comfort (National Dollar Stores, San Francisco). \$1.18. 27x27.

Baby Anne (F. W. Woolworth Stores). \$1. 27x27.

Darling Baby (Gimbels Bros., NYC). \$1.79. 30x30.

Snowdown (5th Avenue Dep't Store, Los Angeles). \$1.40. 27x27. Low tensile strength and resistance to abrasion.

Nursery (J. C. Penney Stores). 98¢. 27x27. Low count; lightweight, with low tensile strength.

(Continued next page)

BIRDSEYE

ACCEPTABLE*(In order of quality without regard to price)*

Sears' Cat. No.—3050 (Sears-Roebuck). \$1.95 plus postage.
27x27. Extra strong diaper.

Macy's (R. H. Macy & Co., NYC). \$1.39. 30x30.

Babycrest (Associated Merchandising Corp.¹). \$2.50. 24x40.

Nursery (J. C. Penney Stores). \$1.08. 27x27.

Cupid (Weinstein Co., San Francisco). \$1.29. 27x27.

Baby Dot (S. H. Kress Stores). 86¢. 27x27.

Darling Baby (Gimbels Bros., NYC). \$1.69. 30x30.

Blue Diamond (Hearn's, NYC). \$1. 27x27.

Baby Anne (F. W. Woolworth Stores). \$1.16. 27x27.

GAUZE**ACCEPTABLE***(In order of quality without regard to price)*

Sears' Cat. No.—3074 (Sears-Roebuck). \$1.89 plus postage.
20x40. Outstanding in quality.

Macy's (R. H. Macy & Co., NYC). \$1.27. 21x40.

Dry Fast (Cannon Mills, NYC). \$1.59. 21x40. Appeared to be
the same as *Macy's* (above).

Babycrest (Associated Merchandising Corp.¹). \$1.79. 20x40.

Curity (Kendall Mills, Walpole, Mass.). \$1.79. 21x40.

Blue Diamond (Hearn's, NYC). \$1.44. 20x40.

Chix (Chicopee Sales Corp., NYC). \$1.98. 20x40.

Vanta (Earnshaw Knitting Mills, Newton, Mass.). \$1.98.
20x40.

Ward's Cat. No.—3173 (Montgomery Ward). \$1.59 plus post
age. 20x40.

Nursery (J. C. Penney Stores). \$1.38. 20x40.

DISHCLOTHS

A good dishcloth can be improvised by using any cloth
large enough to provide adequate rubbing area, absorben

¹ For a list of AMC stores, see page 12.

enough to pick up water from surfaces and strong enough to resist tearing in use or after hard laundering. Commercial dishcloths are popular merely because of their better appearance and low price.

Prices of dishcloths range from 3½¢ to 20¢. Cloths priced from 7¢ to 10¢ are generally the best buys; laboratory tests showed that they tend to last as long as the more expensive cloths.

From the *Reports*, January 1942.

WOMEN'S DRESSES

Among dress stores there is a definite pattern of pricing practices. The stores may be classified into seven types.

Cut price stores are more-or-less self-service shops, usually crowded and unattractive, that sell at unusually low mark-ups. The stock is usually large with wide variety in all sizes.

Notable among cut-rate dress stores is Klein's (New York), where mark-ups are even lower than at other such stores and the variety is tremendous. Next best is Ohrbach's (New York). Stocks are apt to be less handled and soiled than at Klein's, but prices are a bit higher.

Other cut-price stores with good values include: New York: Littman's, Hearn's, Lerner's Outlet Store; Brooklyn: Goodwin's, Fried's; the Bronx: Alexander's. (Prices at the following may be somewhat higher) Philadelphia: Strawbridge & Clothier Basement, Joey's, William Goldberger's; Pittsburgh: Kaufmann's Basement; Baltimore: The Mart; Boston: Filene's Basement; Chicago: Mandel Bros., Morris B. Sachs, Goldblatt's, Gaytime Stores; Detroit: Davidson Bros.; Newark: Ohrbach's, Bamberger's Basement; Chattanooga: Miller Bros.; Louisville: Bon Ton.

Chain stores with cash-and-carry business have consistently low mark-ups, well-kept stock and service is better than in cut-price stores.

Exceptional values are dresses made specially for the Lerner chain (about 40% of Lerner's stock); the style tags of these dresses are marked "Dep't 5" and they have five digits in the style number.

Other chain stores with good values are: J. C. Penney, Darling Shops, Grayson's, Montgomery Ward Retail Stores, Mangel's, Wilbur Rogers, Sally's and Frank Rubinstein.

(Continued—page 92)

HOW TO BUY A DRESS:

Herewith some construction details to look for at the various price levels. Learn what you should expect before you go dress shopping if you want to be sure of your money's worth

| | \$2.95 | \$5.95 | \$8.95 | \$10.95 | \$12.95 | \$17.95 | \$25. & up |
|-------------------------|----------------|---------------------|-------------------|----------------------------------|----------------------------------|----------------------------------|--|
| SEAMS: | | | | | | | |
| Stitches per inch | 8-10 | 10-12 | 12-14 | 14-16 | 16 | 16-18 | 20 |
| Finishing | Unfinished | Pinked | Pinked | Pinked | Pinked | Pinked | Bent or bound |
| Width (after finishing) | ½ inch | ¾ inch | ¾ inch | ½ inch | ½ inch | ¾ inch | ¾ inch |
| Pressing | | Pressed open | Pressed open | Pressed open | Pressed open | Pressed open | Pressed open |
| HEMS: | | | | | | | |
| Finishing | Binding | Binding | Binding | Binding | Binding | Binding | Binding |
| Stitching | Machine felled | Machine felled | Machine felled | Machine felled | Machine felled | Machine felled | Hand felled |
| Stitching | 1 inch | 1½ inch | 1½ inch | 2 inches ¹ | 2 inches ¹ | 2 inches ¹ | 2 inches ¹ |
| Depth | | | | | | | |
| WAISTLINE: | | | | | | | |
| Rows of stitches | One | Two | Two | Three | Four | Five | |
| Ribbon | None | Present (sometimes) | Present (usually) | Present | Present | Present | |
| Depth | | | | | | | |
| PLACKET: | | | | | | | |
| Length | 5 inches | 8 inches | 10 inches | 11 inches | 11 inches | 11 inches | 12 inches |
| Closure | 1 or 2 snaps | Zipper or 3 snaps | Zipper or 4 snaps | Zipper or 4 snaps and hook & eye | Zipper or 4 snaps and hook & eye | Zipper or 5 snaps and hook & eye | (with hand felled facing) Zipper or 5 snaps and hook & eye |

¹ Maximum permitted by WPB Regulations.

| | \$2.95 | \$5.95 | \$8.95 | \$10.95 | \$12.95 | \$17.95 | \$25. & up |
|--|--|--|---|--|--|---|---|
| BELT (made of self-material): Attachment of buckle Loops | Stapled Self-material | Stapled Self-material | Hand sewn Crocheted, hand sewn | Hand sewn Crocheted, hand sewn | Hand sewn *Crocheted, hand sewn | Hand sewn Crocheted, hand sewn | Hand sewn Crocheted, hand sewn |
| NECK: Back opening Facing around neck | 1 snap or 1 button and loop Hangs loose | Buttons and loops Hand tacked or machine felled | Zipper or buttons & loops Machine or hand felled | Zipper or buttons & loops Hand felled | Zipper Hand felled | Zipper Hand felled | Zipper Hand felled |
| FACINGS: Inside edge Outside finish | Bent 1 row machine stitch | Bent 1 row machine stitch | Bound and machine felled Top stitch | Bound and machine felled Top stitch | Bound and hand felled Top stitch | Bound and hand felled Top stitch | Bound and hand felled Top stitch |
| SLEEVE SETTING: Rows of stitches Finish | One Open | One Open | One or two Open | Two Closed | Two Closed | Three or four Closed | Hand felled all around |
| SHOULDER PADS: Stitching | Machine stitched | Machine stitched | Machine stitched or hand tacked at shoulder | Hand tacked at corners | Hand tacked at corners or hand felled all around | Hand felled all around | Hand felled all around |

(Continued on next page)

HOW TO BUY A DRESS:

Herewith some construction details to look for at the various price levels. Learn what you should expect before you go dress shopping if you want to be sure of your money's worth.

| SLEEVE BOTTOMS: | \$2.95 | \$5.95 | \$8.95 | \$10.95 | \$12.95 | \$17.95 | \$25. & up |
|--------------------|-----------------------|-------------------------|-------------------------|--------------------------------|--------------------------------|--------------------------------|-------------|
| Stitching | Stitched down once | Stitched back | Facing or binding | Facing or binding | Facing or binding | Clean edge | Clean edge |
| Finish | Unfinished | Bound or machine felled | Machine felled | Machine or hand felled | Hand felled | Hand felled | Hand felled |
| COLLARS AND CUFFS: | | | | | | | |
| Edges | Clean edge | Clean edge | Clean edge | Clean edge | Clean edge | Clean edge | Clean edge |
| Stitching | Machine | Machine | Machine | Machine | Machine | Machine | Machine |
| Detachability | Detachable | Not detachable | Detachable | Detachable | Detachable | Detachable | Detachable |
| BUTTONS: | One or two | Two | Three | Four to six | Four to six | Six | Six |
| Number of stitches | Continuous | Continuous | Continuous under facing | Continuous under facing | * Separate | Separate | Separate |
| Thread in series | | | | | | | |
| BUTTONHOLES: | Widely spaced machine | Closely spaced machine | Closely spaced machine | Closely spaced machine or hand | Closely spaced machine or hand | Closely spaced machine or hand | Hand-made |
| Stitching | | | | | | | |

| | | | | | | |
|--|---|--|--|---|---|---|
| | | | | | | |
| spaced machine | spaced machine | spaced machine or hand | spaced machine or hand | spaced machine or hand | spaced machine or hand | spaced machine or hand |
| \$2.95 | \$5.95 | \$8.95 | \$10.95 | \$12.95 | \$17.95 | \$25. & up |
| Chain stitched Darts (usually) | Chain stitched Darts at edges | Chain stitched Darts at edges | Machine stitch Darts at edges | Machine stitch Darts at edges | Machine stitch, hand knotted None | Machine stitch, hand knotted None |
| POCKETS: Type Construction Hole for double ply | Patch Single thickness..... | Patch Double ply Hole near inside center | Patch Double ply Hole near inside bottom | Welt or patch Double if patch No hole | Welt or patch Double if patch No hole | Welt or patch Double if patch No hole |
| KERCHIEFS: Finish at edges Method of attachment | Pinked, or inverted raw Not attached | Machine hemmed Pinned | Machine hand rolled Hand sewn | Machine hand rolled Hand sewn | Hand rolled Hand sewn | Hand rolled Hand sewn |
| FLOWERS: Method of attachment | Pinned or 1-2 stitches | Pinned or 1-2 stitches | Firmly hand sewn | Firmly hand sewn | Firmly hand sewn | Firmly hand sewn |
| PIPING | None (cording instead) | French piping | French piping | French piping | French piping | French piping, hand felled |
| SHIRRING IN CLUSTERS Stitching | | | | | | |

Type A specialty dress stores, usually located in highly competitive shopping areas and home neighborhoods, sell at the same general level as the chain store. Usually, selection is more limited but service is better. The owner is usually both buyer and salesclerk and is often willing to shop for individual customers. In some such stores alterations are done free, but the original price may be a dollar or so above the chain store level.

Type B specialty stores usually have expensive locations, "distinguished" atmosphere and prices comparable to upstairs shops in department stores.

Smaller cities generally have one or two large specialty shops, their prices are generally fair and their merchandise reasonably reliable.

Department stores have a "basement dress shop" and an "upstairs shop," separately operated, with different dress lines. Mark-ups in the basement are usually lower, service poorer; prices range from \$2.95 to \$10.95. Prices upstairs generally start at \$5.95. The best department store value is usually the \$3.95 brand-labeled shirtwaist dress.

Credit stores offer poor buys; don't buy there. Prices are entirely out of line with costs.

Mail order houses like Montgomery Ward, Sears Roebuck and Chicago Mail Order give excellent service at low prices (between those of cut-rate and chain stores.) Montgomery Ward garments in particular give good fit if you follow directions for measuring. Styling of mail-order dresses tends to be conservative, but material, workmanship and fit are generally of high quality for the price.

"**Distress Merchandise**" includes garments closed out by manufacturers at the end of the season or by manufacturers or retailers who are going out of business, or slightly imperfect or soiled goods. It is sold at greatly reduced prices, frequently in cut-price stores, also at stores specializing in such merchandise. To be sure you are buying "distress merchandise" rather than regular stock, check the "What to look for" pointers in this article.

"**Sales**" in regular stores may or may not be legitimate. Look for the original price tag with the old price on the dress you buy; often real "sale" dresses are put on the same rack as dresses, not reduced, that sell for the same price and are worth no more. Beware, too, of claims for "special purchase," "made to sell for," "worth at least," etc.

• WHAT TO LOOK FOR

Material, trimming and construction determine the cost of a dress (prices quoted here are in terms of upstairs department store mark-ups).

Materials: Cottons and rayons are used in all price lines, and fabric quality is not necessarily proportionate to price. Above \$6 or so, you pay not for durability but for more exclusive design, finer printing and better dye, trimming and workmanship. Rayons compare favorably with other fabrics except that they become weak when wet, and many rayons, especially those with crinkle weaves, tend to stretch or sag.

In the latter part of 1942 pure wool could seldom be found in dresses retailing for less than about \$11. As time goes on, you may have to pay much more to get pure wool. For around \$8 you'll find mixtures containing about 50% wool. The better mixtures, as well as Aralac, a wool substitute, drape well and are very satisfactory fabrics except that they probably lack some of wool's heat retention and wrinkle resistance.

Pure silk dresses are rarely found. Dresses sold as such should bear a label marked "pure silk."

Trimmings and accessories are a good indication of quality.

Buttons and belt buckles covered with the same material as the dress are found in all price lines. If other buttons are used: from \$3 to \$9—plastics ranging from light to heavy; at higher prices—good quality pearl, bone or very heavy and well-made plastics. Try to get individually sewn buttons at any price, rather than whole rows sewn with a single thread.

Cloth belts: \$3—generally backed with thin, paper-like fabric; \$6—heavier backing; \$9—leatherette backing. Leather type: probably not real leather under \$11.

Artificial flowers: cheap dresses—paper or roughly cut fabric with paper stems; at higher prices—large sprays made of cloth, firmly attached to covered wire stems, edges rolled if the style makes it possible.

Shoulder pads: \$3—thin cotton buckram with unfinished edges; \$6—heavier buckram with bound edges or round pillow-type pad with raw edges; \$9—round pillow-type pads with bound edges or triangular pads with bound edges; \$11 up—triangular pads self-covered and smoothly seamed all around.

Collars and cuffs: Material of tailored details varies little. "Dressmaker" style: \$3—generally cotton or eyelet batiste; \$6: often skimpy machine-made lace details; \$9—similar material,

more generously applied; \$11—machine-made lace of better quality; above \$17—handmade lace.

Jewelry: Plastics will probably replace metal. Look for well-finished edges and good clasps on better dresses.

Construction is the most important point in determining value in a dress. (See table page 88).

Cheaper dresses are generally sized correctly. At higher prices they are usually cut large to allow ample material for alterations.

Best buys are generally dresses selling at less than \$10, but tailored woolens in the \$10 to \$30 class should give superior material and workmanship.

From the *Reports*, September 1942. (Labor notes included.)

FURS

If you have any furs that are not being used, contribute them to the war effort. Many department stores and independent tailors are donating their time to make vests and jackets of old furs for merchant seamen.

GIRDLES

The elastic-knit, two-way stretch girdle is fast becoming a war casualty. Girdles now being manufactured have only a narrow panel of elastic on either side. They have no more than two pairs of garters, and only the back ones are elastic. Some girdles for heavier figures are resorting to lacings for snug fit. Others have hooks and eyes in place of zippers.

Proper care of a girdle can prolong its life considerably. It should be washed frequently with neutral suds and lukewarm water—ideally after every wearing. Never allow the garment to become badly soiled, so that it needs hard scrubbing to get it clean. A garment containing elastic should never be wrung. Roll it in a turkish towel after washing and then lay it out flat to dry, away from heat and direct sunlight. Fabric panels may be pressed with a warm iron while damp, but do not use an iron on elastic portions.

The boning in a girdle is often the first part to go. If bones snap or push through their casing when the rest of the garment is still in good condition, have them replaced at once. Once the boning is gone, the garment quickly loses shape and is

worthless. Most department stores and corsetieres will make small repairs on a girdle for a nominal cost.

MEN'S HANDKERCHIEFS

You get more value for your money when you buy dime-store handkerchiefs instead of the more expensive packaged brands.

Handkerchiefs, like sheets, have more even edges and will remain square when washed if they are torn rather than cut to size. You can usually tell whether this has been done by noticing whether the sewed edges are parallel to the weave.

Linen handkerchiefs are stronger, more absorbent and more resistant to stain than cotton, but they are not plentiful in the present market.

KNITTING YARNS

The most commonly used all-wool knitting yarns are four-ply knitting worsteds, knitting ombres, Germantown Zephyr worsteds, Shetland floss, Cassimere sport yarns, Saxony yarns, and sports or tweed yarns.

Tests made by CU in May 1940 showed *Botany* yarns to be outstanding among nine brands of four-ply knitting worsteds including ombres.

LAYETTES

Prepared layettes are not "bargain bundles"; they usually cost as much as if you bought each item separately. Their disadvantages are that they often contain more than is really needed, and all the garments included may not be just what you want.

The wisest course is to make a list of the items needed and buy them separately, shopping through several stores for the best values. Start with essential items and add others as your budget permits. The following are essential (buy size 2):

To clothe the baby: 3 sleeveless vests (bands); 3 shirts; 3 nightgowns (one on the baby, one on the line, one for emergencies); 4 dozen diapers (if you don't intend to use diaper service); 6 flannelette squares, 36" by 36", often called receiving blankets.

To keep the baby dry, clean and comfortable: 3 sheets; 2 small waterproof pads, size 11" by 18"; 1 large waterproof

pad; 6-12 cotton toweling pads, size 11" by 18"; 2 bath towels about 40" square; 2 face towels; 2 washcloths.

The following may be included to "dress up" the baby, if you wish: 2 or 3 wrappers; 2 sacques or sweater 2 or 3 dresses; 2 or 3 slips or gertrudes; bunting; waterproof pants.

Babies' clothing should be simple and warm, though light in weight. The various parts of an infant's attire should be fairly uniform in warmth; it is not necessary to keep the abdomen or feet warmer than any other part of the body.

Vests and shirts with 10% wool content protect against temperature changes better and absorb more moisture than cotton ones. But if wool garments irritate the baby's skin discard them.

There are three basic styles of baby shirts: button-down-the-front (coat style), slip-on and double breasted. The coat style is most popular; it is easy to put on, warm enough but not too heavy and launders well. Slip-on shirts have no buttons or tie strings but are difficult to put on without disturbing the child. Both slip-on and double breasted shirts tend to stretch and leave the throat exposed. Double breasted shirts have tie strings and give double thickness of material in front.

The baby's nightgown may be of any soft material such as flannel or stockinette, with either a drawstring or buttoned hem. It must be long enough to come well below the feet.

Nightgowns, wrappers and dresses should open all the way down the back. When the baby is very small, front opening wrappers (with round collars) may be put on backwards.

The most suitable outdoor wrap for a very young infant is a 36" by 36" flannel square or afghan with one corner lined with a soft fabric for a hood. For an older baby a heavier zipper type of bunting can be used. In cold or windy weather the baby's ears must be protected. A woolen cap or hood will serve, but avoid fuzzy materials near the baby's face.

An all-wool or part-wool blanket for the bed and carriage can be made by cutting to crib size a few thicknesses of worn blanket, stitching them together and covering them with a removable washable slip cover.

The most practical waterproof sheets are made of rubberized stockinette or flannelette and rubber or a thin oil-silk sheet between two folds of huck toweling. The disadvantage of quilted pads is that they may become "lumpy" after washing.

Towels and washcloths should be of very soft material. Bath towels of double thickness are best, either terry cloth on both sides or terry cloth on one side and cotton jersey on the other. Soft old linen guest towels make ideal face towels.

The binder is usually provided for at the hospital. If the baby is to be born at home, three 18" by 4" binders should be prepared of worn linen, outing flannel or cotton, with edges "pinked." The new baby is better off without stockings. Later, socks or large booties can be worn. Extra-large safety pins are not needed because the baby's covers should not be fastened down.

Your baby's garments can be made at home at a small saving. The following patterns have been approved by the U. S. Bureau of Home Economics: *Advance* No. 1835 (25¢ at any J. C. Penney store)—patterns for gown and sleeping bag; *Simplicity* No. 3506 (formerly No. 2618) (15¢ at S. S. Kresge, S. H. Kress, Montgomery Ward, Sears-Roebuck and most department stores)—patterns for nightgown, wrapper, slip, dress, bib, gown and cap.

Before the baby's toilet tray is assembled, the doctor should be asked what will be needed.

From the *Reports*, October 1942.

LEATHER GOODS

Because most of the nation's supply of high grade leather must be used for military purposes, it will be increasingly difficult to find high quality leather in goods for civilian use. But by shopping around you can still get the better grades in many products.

Top grain leather (the surface layer of a hide) is stronger than split grain, but it isn't necessary for good durability in all leather articles. It should, however, be present in gloves, where thin sections of hide must be used. In leather goods where thicker sections of hide are used, split grain (under layers) should last just about as long as top grain, though it won't maintain good appearance as long.

A "genuine leather" label is no guarantee that the leather is of good quality. If the leather is inferior, leatherette or canvas may be a better buy.

In buying alligator, shark, walrus and other so-called "fancy" leathers, beware of imitations—other leathers or split hides embossed with a "fancy" grain. Leather goods should be

labeled with the name of the animal it comes from, and if split hides have been used, the label should be so marked. If it is merely marked "genuine leather," insist on a written guarantee that the grain is genuine.

Suitcases: The strength of a suitcase depends on the box. The best are generally made of lightweight basswood. Cheaper ones are made of cardboard, usually laminated for extra strength. These cases are not apt to last, especially if they are larger than 16 to 18 inches. If you can't afford a basswood suitcase, try to get one made of veneer.

The type of closure is a good indication of the quality of suitcase construction. Well constructed cases have a set-in valance, i.e., an extra piece of wood fitted into the box at the point of closure. Cheaper constructions usually have bevelled edge closures, where the wood of the box itself is cut to resemble the valance. If a bag is to stand hard wear, be sure to get one with a set-in valance closure.

Briefcases: A genuine shark or alligator case is quite expensive but is a good buy if you can afford it. Good briefcases should be of top grain leather with a leather lining. Gussets should be of good quality top grain. In a wide case bellows-shaped gussets should be supported by leather separators; flat gussets should have stiff lining. The case should have double rows of stitching at all points of strain.

Less expensive briefcases may give good service, but they won't have leather linings, often will have split grain or leatherette gussets and may lack extra stitching at points of extra wear.

Hardware: Locks on suitcases, trunks or briefcases should be made of rust-proof metal, molded rather than stamped-out. Molded locks are usually made of heavy metal; most stamped-out locks are of thin metal, bent over to produce a smooth edge and an impression of thickness.

Locks should be attached by means of rivets closed on both ends. Hinges should be of cold-rolled steel painted or plated to retard rusting. The best handles have a metal frame with a leather covering, which is sewn on rather than pasted. Heavy bags should have a strip of metal across the inside of the bag where the handle enters. Rings or other devices used to connect handles to bags should have no open ends which can pull out. In many cases plastic handles are replacing metal. Indications are that they will wear well.

Wallets: The pockets should be made of leather as good as

that used for the face. Metal edges should be firmly attached so that their ends will not protrude once the leather has softened.

Key cases should be constructed so that the rings will not catch on one another. Extra gadgets such as lights, key ejectors, etc., add to the cost, and are seldom worth buying.

Handbags: In the lowest price ranges (\$2 or less), leatherette bags are generally better buys than real leather. Fittings and shirring in leather bags generally keep pace with the price. If a low priced bag has many pockets and fittings, be wary of skimping in other features.

Alligator and shark bags usually cost over \$10 unless they are small, with little or no shirring or pleating, or made of scraps. Scrap leather bags will last as long as bags made of one piece if the stitching is firm.

Plastic hardware and fittings are replacing metal on handbags. If carefully made and tested, they should be satisfactory. Zippers, if present, are also generally made of plastics.

Belts made of one complete piece of leather are preferable to those made of two strips stitched together. Choose a belt made of tough leather for long wear.

Leather garments should have double rows of fine, even stitches; needle holes should be as small as possible, and all free seam ends should be tucked in. Reinforcements should be present, and preferably of better quality leather than the body of the garment; otherwise the leather should be of the same type and thickness throughout.

From the *Reports*, November 1941.

• CARE AND REPAIR

Wet leather **shoes** should be placed on shoe trees or stuffed with newspapers until dry. Let them dry slowly, away from heat or sunlight. When they are dry, rub the soles and uppers with castor oil. Castor oil will not affect the finish, and shoes can be shined afterwards.

Suede shoes should be brushed with a circular motion with a soft-bristle (not wire) brush or a special rubber pad. After cleaning, smooth the nap in one direction. Avoid powder cleaners; use special suede cleaning solutions.

Smooth leather shoes should be cleaned and shined regularly and frequently. They are best cleaned with neutral polish or cream, then shined with polish the same shade or lighter than the shoes.

(Continued next page)

Don't wax or polish patent leather. Use neutral soap and a damp rag for cleaning and remove the soap with a clean, damp cloth. Spots on any leather shoes should be removed with dry-cleaning spot removers. Apply solution with a soft fabric swab, then polish the shoes.

White rough leathers should be first brushed with a soft-bristle brush, then cleaned with ordinary white shoe dressing. After cleaning, brush off excess pigment. Smooth white shoes should be cleaned with white shoe dressing and a soft cloth, never with a brush.

The leather in handbags, briefcases, luggage, etc., should be cleaned and polished periodically, whether the article is in use or not. Use soap and water or saddle soap, but avoid getting the leather too wet. Then rub neat's foot oil into the leather.

A thin coat of vaseline will help preserve metal locks and fittings.

Gloves: Wash only gloves which are marked "washable." Wash those often, before they are so soiled that they require rubbing, as rubbing may wear and tear the leather.

Doeskin and chamois gloves should not be washed on the hand or on glove forms, since they soften when wet. Wash them first on the inside, then on the outside; use a soft brush on badly soiled spots. Lay the gloves flat on a towel away from direct heat or sunlight to dry.

All other washable gloves should be washed on the hand in lukewarm water and neutral soap. Rinse out all soap in tepid water. Roll in a towel to dry. Do not twist or wring. Blow into the gloves to restore the shape and lay them flat on a towel to finish drying.

When nearly dry, place gloves on an even surface and lay the palm of the left hand against the edge of the palm of the glove, then stretch each finger separately to its original size. When stretching the thumb of the glove, lay the palm of the hand against the bottom of the thumb to prevent strain against the seams.

Gloves which are not washable should be cleaned with a dry-cleaning spot remover. Suede gloves should be cleaned with a soft brush, *not metal*; occasionally use special suede cleaning solutions which contain small amounts of aniline dye the same color as the gloves.

From the *Reports*, July 1942.

MEN'S PAJAMAS

Men's pajamas are made in a variety of styles and fabrics, but broadcloth and percale are by far the most popular. Sateen is preferred by some men because of its luster and smooth surface. Cotton knits of the balbriggan type require no ironing and are especially absorbent; hence they are preferable for men who perspire excessively.

Broadcloth is a finely ribbed fabric with about twice as many warp (lengthwise) as filling (crosswise) threads. Percale, a cheaper fabric in every way, has a more balanced but lower thread count. It doesn't wear so well, since it has lower tensile strength. Designs in percale are generally printed; in broadcloth they are more often woven.

Color should be fast to washing and resistant to sunlight. Vat dyes, used up to now for all but the very brightest striped patterns of pajamas, are being curtailed because of military needs. Consumers may expect their substitutes to be poorer in quality. Pajamas will have to be washed with greater care and dried out of direct sunlight. Since colors may run, stripes should be avoided, and solid colored suits should be washed by themselves.

Most pajamas conform fairly well to the recognized sizes: A (the smallest), B, C and D. None of the pajamas tested shrank as much as 5%, though 20 suits shrank more than 3½%. Since pajama dimensions tend to be liberal, this amount of shrinkage is not serious.

Only broadcloth and percale pajamas were tested. Ratings were based on the all-round results of tests for conformity to size specifications, shrinkage, tensile strength, resistance to abrasion, weight of cloth and thread count.

Unless otherwise indicated, the pajamas tested had a notched lapel, two-button fly construction, and were held up by a knitted drawstring with an elastic section.

From the *Reports*, April 1942. (Labor notes included.)

BEST BUYS

The following pajamas of the "Acceptable" list were judged to offer the best value for the money, in order of quality. For full details see listings under "Acceptable."

Mr. Trent. Solid color broadcloth. \$2.50.

Wilson Faultless Nobelt. White broadcloth. \$2.25.

(Continued next page)

BEST BUYS—CONT'D

BVD. Solid color broadcloth. \$2.00.

Conway Fieldbilt. Solid color broadcloth. \$1.95.

Mr. Trent. Printed broadcloth. \$2.00.

ACCEPTABLE

(In order of quality without regard to price)

Macy's Kempton (R. H. Macy & Co., NYC). \$2.77. White broadcloth.

Mr. Trent (Hale Bros., San Francisco). \$2.50. Solid color broadcloth.

Hudson Darwood (J. L. Hudson, Detroit). \$3.50. Solid color broadcloth, collarless.

Macy's Kempton (R. H. Macy & Co.). \$2.77. Solid color broadcloth.

Jayson Super-Whitehall (Artistic Shirt Co., NYC). \$2.69. Solid color broadcloth.

Wilson Faultless Nobelt (Wilson Bros., NYC). \$2.25. White broadcloth, wide elastic all around with two buttons on waist, one-button fly. Waist smaller than specifications called for.

Macy's (R. H. Macy & Co.). \$1.88. Solid color broadcloth, pullover type, collarless, enclosed elastic band in sides, drawstring at back, one gripper at waist and one on fly. Material skimped.

BVD (BVD Co., NYC). \$2.00. Solid color broadcloth, wide elastic in back, two buttons on waist, one-button fly. Material skimped in waist.

Conway Fieldbilt (Marshall Field & Co., Chicago). \$1.95. Solid color broadcloth, enclosed elastic on side with drawstrings at back, one button on waistband and one-button fly.

Mr. Trent (Hale Bros.). \$2.00. Printed broadcloth, one-button fly. Material shrank in warp direction.

Jayson Super-Whitehall (Artistic Shirt Co.). \$2.69. White broadcloth.

Townsman (Hale Bros.). \$1.79. Solid color broadcloth.

Varsity (Excelsior-Varsity Co., NYC). \$1.95. Printed broadcloth. Material shrank in warp direction.

Jayson (Artistic Shirt Co.). \$1.83. Solid color broadcloth.

Gentry (J. C. Penney Stores, NYC). \$1.98. Printed broadcloth, knitted drawstring attached to pajamas without elastic. Also available with enclosed elastic on sides with two but-

ACCEPTABLE—CONT'D

- tons at waist and one on fly. Material shrank in warp direction.
- Ward's Whitman** Cat. No.—3711 (Montgomery Ward). \$2.47 plus postage. Printed broadcloth.
- Hudson Darwood** (J. L. Hudson). \$2.50. White broadcloth. Material shrank in warp direction.
- Manhattan** (Manhattan Shirt Co., NYC). \$2.00. Printed broadcloth, pullover type, wide elastic in back, two buttons on waist, one-button fly. Material shrank in warp direction.
- Townsman** (Hale Bros.). \$1.79. Printed percale, pullover type, collarless, one-button fly. Material shrank in both directions.
- Hudson Darwood** (J. L. Hudson). \$2.25. White broadcloth.
- AMC** (Associated Merchandising Corp., NYC¹). \$2.00. Solid color broadcloth.
- Reis-tex** (Robert Reis & Co., NYC). \$1.95. Solid color percale, wide and long elastic attached in back, two grippers on waist, one-button fly. Material shrank in both directions.
- Jayson** (Artistic Shirt Co.). \$1.83. White percale. Material shrank in warp direction.
- BVD** (BVD Co.). \$2.00. White broadcloth, one-button fly. Material shrank in warp direction and was skimped.
- AMC** (Associated Merchandising Corp.¹). \$2.00. Printed broadcloth, pullover type, collarless. Material shrank in warp direction.
- Macy's** (R. H. Macy & Co.). \$1.88. White broadcloth, enclosed elastic in band on side, drawstring at back, one gripper at waist and one on fly. Material skimped in practically every measurement.
- Manhattan** (Manhattan Shirt Co.). \$1.85. Printed percale, wide elastic all around, two buttons on waist, one-button fly.
- Conwaybilt** (Marshall Field & Co.). \$1.75. Printed percale, collarless, enclosed elastic on side, drawstring in back, one button on waist, one-button fly. Material shrank in warp direction.
- Wilson Faultless Nobelt** (Wilson Bros., NYC). \$2.50. Printed percale, pullover type, collarless, wide elastic all around, two buttons on waist, one-button fly. Material shrank in warp direction and was skimped.
- Gimbel's Parkleigh** (Gimbel Bros., NYC). \$2.25. Printed percale, one-button fly. Material shrank in warp direction.

¹ See page 12 for a list of AMC stores.

(Continued next page)

ACCEPTABLE—CONT'D

- Hudson Darwood** (J. L. Hudson). \$2.25. White woven striped percale. Material shrank in warp direction.
- Conway Fieldbilt** (Marshall Field & Co.). \$1.95. Printed percale, enclosed elastic on side, drawstring in back, one button on waist and one-button fly. Material shrank in warp direction.
- Conway Conwaybilt** (Marshall Field & Co.). \$1.75. Solid color broadcloth, collarless, enclosed elastic on side, drawstring at back, one button on waist, two-button fly. Material shrank in warp direction.
- Fruit of the Loom** (Lubin-Weeker Co., NYC). \$2.50. Printed percale. Material shrank in warp direction.
- Horton** (Phillips-Jones Corp., NYC). \$1.65. Printed percale, wide elastic waist, two buttons on waist, none on fly. Also available with knitted drawstring with elastic section, and no-button fly. Material shrank in warp direction.
- Gentry** (J. C. Penney Stores). \$1.65. Printed percale, enclosed elastic on side with two buttons on waist and one-button fly. Also available with knitted drawstring attached to pajama and two-button fly.
- Gimbels Parkleigh** (Gimbels Bros., NYC). \$2.25. Solid color percale, one-button fly. Material shrank in warp direction.
- Van Heusen** (Phillips-Jones Corp.). \$2.50. Printed percale, one-button fly. Material shrank in warp direction.
- Varsity** (Excelsior-Varsity Co.). \$1.95. Printed percale. Material shrank in warp direction.
- Gimbels** (Gimbels Bros.). \$1.69. Printed percale, enclosed elastic on side, two buttons on waist, one-button fly. Material shrank in both directions, and was skimped.

WOMEN'S KNIT PANTIES

The factors which determine the wearing qualities of women's knit panties are fit, closeness and type of knit, the kind of fiber used and the general construction.

Don't judge fit by size markings; they are generally unreliable. Measure the garment, and be sure that the waist will stretch easily to your hip measurement. Where the waistline has elastic sewed to the material or in a hem, the stitches should not tear when the waist is stretched fully.

The crotch should be either a double thickness of material

or a single thickness that is heavier than the rest of the garment.

Tricot or multiple-type knit is the best because it does not run (the ribs at the back of a tricot knit garment are right angles to the ribs on the face). The one-in, one-out knit, which looks the same on both sides of the material, will run in one direction only. Plain knit garments, which are knit like stockings, are least desirable, because they run both up and down.

Rayon pants must be washed very carefully. They should not be twisted while wet, and they should be dried flat and ironed carefully with a warm, not hot, iron. Acetate rayon should be ironed when the material is dry.

From the *Reports*, November 1940.

WORK PANTS

The label of work pants should indicate that they have been pre-shrunk and should state the weight of the material. Eight-ounce denim is the most popular fabric for factory workers' pants; farmers and workers in heavy industry usually prefer ten-ounce denim. (Weights are of a piece of cloth 36 inches by 28 inches.)

The following points of construction are important: Pockets should be well-sewn, their ends finished with single or double bar tacks or rivets. Bottoms of the back pockets should be reinforced with a double thickness of fabric.

There should be a strap at the back of the pants for adjusting the waist; it should be riveted or double stitched at the lines of attachment.

There should be four or five buttons at the fly, riveted on. WPB regulations call for four on sizes below 38, five on larger sizes. If suspender buttons will be used much, they too should be riveted. Buttonholes should be tightly sewn; the edges of buttonholes and the bottom of the fly should be bar-tacked. Six to eight belt loops are necessary, and they should be riveted or bar-tacked top and bottom, or else inserted into the waist-line at the top and bar tacked at the bottom.

If a special type of work requires special pockets or special tool straps, be sure they are present, and are fastened with bar tacks or rivets. Workers who do much kneeling need special reinforcements at the knees. Those who do heavy work should get the heavier weight denim.

(Continued next page)

Work pants should be washed frequently. Extremely dirty clothes require such strong washing that the fabric is damaged; besides, the cloth is weakened by embedded soil, grease and perspiration. If the pants are washed at home, it is best to use a built soap and hot water. Iron them while damp with a fairly hot iron.

Ratings are based on tests of two samples of each brand for tensile strength, weight, thread count, resistance to abrasion and shrinkage. Construction details described above were also considered. Only denim pants were tested. All weights of fabric are listed together according to all-round quality.

From the *Reports*, November 1942.

BEST BUYS

The following brands of the "Acceptable" list were judged to offer the best value for the money. For full details see listings under "Acceptable."

Pay Day. \$1.59.

Power House. \$1.49 plus postage.

Hercules. \$1.45 plus postage.

ACCEPTABLE

(In order of quality)

Pay Day (J. C. Penney Co., Inc., NYC). \$1.59. 10 oz. denim. Bar-tacked at all necessary points. Two rows of stitching at pockets and three rows at seams.

Can't Bust 'Em Copper King (Eloesser-Heynemann Co., San Francisco). \$1.98. 10 oz. denim. Riveted or bar-tacked at all necessary points. Two rows of stitching at pockets. Two rows on outside and one row on inside seam.

Headlight (Larned Carter and Co., Cincinnati). \$1.98. 8½ oz. denim. Bar-tacked at all necessary points. Two rows of stitching at pockets and seams.

Sweet-Orr (Sweet-Orr and Co., Inc., NYC). \$1.98. 8 oz. denim. Bar-tacked at all necessary points. Two rows of stitching at pockets and seams.

Power House Cat. No.—6174 (Montgomery Ward). \$1.49 plus postage. 8½ oz. denim. Bar-tacked at all necessary points. Two rows of stitching at pockets and seams.

Auto-Brand (Louis Meier and Co., Indianapolis). \$1.95. 8 oz. denim. Bar-tacked at all necessary points. Two rows of stitching at pockets. Three rows at seams.

ACCEPTABLE—CONT'D

Oshkosh B'Gosh (Oshkosh B'Gosh Co., Oshkosh, Wis.). \$1.89. 8½ oz. denim. Bar-tacked at all necessary points. Two rows of stitching at pockets. Three rows at seams.

Hercules Cat. No.—17 (Sears-Roebuck). \$1.45 plus postage. 8½ oz. denim. Bar-tacked at all necessary points. Two rows of stitches at pockets. Three rows at seams.

Liberty (Liberty Overall Co., Birmingham). \$1.98. 7½ oz. denim. Bar-tacked at all necessary points. Dressy type. One row of stitches at pockets and seams.

Lee (H. D. Lee Mercantile Co., Kansas City). \$1.98. 8 oz. denim. Bar-tacked at all necessary points. Two rows of stitches at pockets. Three rows at seams.

Wear Well (Anthracite Overall Mfg. Co., Scranton). \$1.98. 8 oz. denim. Bar-tacked at all necessary points. Two rows of stitches at pockets. Three rows at seams.

Red Bar (W. M. Finck and Co., Detroit), \$1.59. 8 oz. denim. Bar-tacked at all necessary points. Two rows of stitches at pockets and seams.

Hard Rock (The Fair Store, Chicago). \$1.59. 8 oz. denim. Bar-tacked at all necessary points. Two rows of stitches at pockets. Three rows at seams.

Iron Ace (The Fair Store). \$1.39. 8 oz. denim. Riveted at all necessary points. Two rows of stitches at pockets. Three rows at seams.

Iron Thread (Hale Bros., San Francisco). \$1.98. 7½ oz. denim. Bar-tacked at all necessary points except at the top of the side pockets. Dressy type. One row of stitches at pockets and seams.

Casey Jones (Casey Jones, Inc., Baltimore). \$1.85. 7½ oz. denim. Riveted at all necessary points. Two rows of stitches at pockets. Three rows at seams.

NOT ACCEPTABLE

The following work pants were considered to be "Not Acceptable" because of excessive shrinkage without allowance in fit to compensate for losses in size.

Levi's (Levi Strauss and Co.). \$2.25. 10 oz. denim. Riveted at all necessary points. Two rows of stitches at pockets. Two rows at outside and one row at inside seam. These pants are for riding and are pegged at bottom to allow for insertion into boots. Would be near top of "Acceptable" list except

for excessive shrinkage in length and width.

Carhartt (Carhartt-Hamilton Overall Co.). \$1.98. 7½ oz. denim. Bar-tacked at all necessary points. Two rows of stitches at pockets and seams. Excessive shrinkage in length.

RAINCOATS

A raincoat may be water-repellent ("showerproof") or waterproof. Water-repellent coats are treated to make their fibers water-resistant without closing the pores of the fabric. Therefore they provide better ventilation and can be tailored better than waterproof coats. They will shed water well except in heavy rain, provided they are not exposed too long. But only a few of the showerproof coats on the market are guaranteed to retain their water-repellent qualities after dry cleaning or washing.

A coat which has lost its water-repellent qualities in cleaning can usually be reprocessed for about \$2. Zelan treatment applied to the cloth before manufacture into the finished garment, provides permanent waterproofing. It appears highly satisfactory.

Waterproof coats can be made either of rubber sheeting or synthetics like pliofilm or of fabrics coated with rubber or oil. At the present time, no rubber sheet or pliofilm coats are being produced.

While the fabric of waterproof coats will not allow water to come through, the seams will, unless they are taped. The taping should be applied in the same manner as a patch on a tire tube; water can penetrate stitch holes. Reversible coats which can be worn as a raincoat on one side and as a topcoat on the other generally have seams which are not taped.

If the pockets are made to allow access to jacket or pants, a sufficient over flap should be present so that water will not get through. Buttons or other fasteners should keep the bottom of the coat from flying open. The coat should be roomy and should have adequate provision for ventilation under the arms.

Rubberized coats are heavier than oiled fabrics, and stronger. A rubberized coat made with the rubber between two layers of fabrics will last longest. Those with the rubber on the outside crack under prolonged exposure to sunlight.

When buying either type of raincoat, look for the following:

1. Complete waterproofing where that is desired—taped

seams and a fabric which shows no unfilled spaces between the threads when held up to the light.

2. A comfortable size, which will allow an extra garment underneath for warmth when necessary.

3. A well-proportioned cut which includes particularly a wide enough skirt and an ample overlap.

4. A collar which fits smoothly at the back of the neck.

5. Buttons which are firmly attached to a double thickness of fabric.

6. Big enough pockets with slits that afford convenient access to trouser pockets.

7. Yoke linings, which strengthen the garment across the shoulders, where the greatest strain occurs.

Reasonable care of raincoats will prolong their life considerably. Keep them away from excessive heat, and make sure they are dry and the fabric smoothed out before they are put away. Rubberized coats should never be hung on a shoulder hanger. Hang them to a hook by the hanger sewn in the coat.

Any breaks which occur in the lightweight fabrics should be mended immediately to preserve the coat from complete ruin. Neither sewing nor adhesive tape is satisfactory. The strongest and least conspicuous mend that CU could find was obtained by applying a piece of the coat fabric itself (taken from the hem) under the tear with rubber cement.

RAYON STOCKINGS

Rayon stockings, now manufactured in large quantities as a substitute for silk and nylon, leave much to be desired. Their manufacture has not yet been standardized to the point where all stockings of the same brand will necessarily be similar in quality.

In tests CU conducted among a selected group of 25 women, all the rayon hose tested were baggy at the knee. They were weak at the toes and heels unless reinforced with cotton. Some were sheer, ringless and uniform in color, but others abounded in rings and color defects.

Rayon hosiery is inferior to silk but costs about the same as silk once did. It demands a great deal more attention and care than either silk or nylon. Advances in the manufacturing process may bring about a better product before long. The wearer of rayon stockings can help to bring about the neces-

sary improvements by discussing complaints and suggestions about the stockings at the store where they were bought, or by writing her suggestions to the manufacturer.

From the *Reports*, July 1942.

SHEETS

Most sheet fabrics are either muslin or percale. The two fabrics differ in durability, comfort and cost. The initial cost of percales is high, but their lighter weight means lower upkeep for those who pay for their laundry by the pound. Heavy muslin lasts somewhat longer but because of its weight, some persons find it less comfortable than percale. Weighing all these factors, percale may be the more economical buy if the initial price can be afforded, and if the sheets are laundered at pound rates.

Whatever kind of sheet you buy, it should have tight, firm weave, good resistance to abrasion, reasonably high tensile strength and practically no sizing that will come out in laundering. It should not shrink more than 5%. It should be torn to size rather than cut. It should have at least $\frac{1}{4}$ inch selvage on each side and firm hems on either end sewn with straight line stitching.

Thread count determines the "feel" of the fabric. Percales are made of finer and more numerous threads than muslins. In good sheets, muslin or percale, thread count is about equal for warp (lengthwise) and filling (crosswise) yarns. Holding a sheet up to the light gives some indication of the balance of the weave. Lightweight sheets are desirable if the lightness is due to fine yarns set close together, rather than to sleazy construction. Any sheet lighter than $3\frac{1}{2}$ ounces per square yard, however, is almost certain to be sleazy and will not last long.

Damaged sheets should be sold at reduced prices as "seconds" or "run-of-the-mill." Such sheets with minor flaws that will not affect wearing qualities may be good buys, but a sheet with missing yarns, gashes, mildew stains or frayed selvages is no economy.

In CU's ratings tensile strength and resistance to abrasion were given most emphasis, but weight, thread count, amount of sizing and shrinkage in washing were also considered. Muslins and percales are rated separately. Muslins are classified as heavyweight or medium weight. Sheets listed under

percales are designated as "high count" or percale. The former are actually high count muslins, having lower thread count than those designated percale. They are listed under the heading of percales because manufacturers sell them as such.

From the *Reports*, January, 1942.

New ratings of sheets will appear in the *Reports* in January, 1943. A market survey made in November, 1942 shows prices considerably higher than those listed below.

Unless otherwise noted, sheets are the 81 x 108 inch torn size before hemming.

MUSLINS

ACCEPTABLE

(In order of quality without regard to price)

Macy's Mayflower (R. H. Macy & Co., Inc., NYC). \$1.56.
81 x 103½ in. size. Heavyweight muslin.

Nashua Indian Head (Nashua Mfg. Co., Boston). \$1.69.
Heavyweight muslin.

Fruit of the Loom Extra Weight (Fruit of the Loom, Inc., Providence, R. I.). \$1.84. Heavyweight muslin.

Utica (Utica & Mohawk Cotton Mills, Inc., Utica, N. Y.). \$1.89. Heavyweight muslin.

AMC Ambassador (Associated Merchandising Corp., NYC). \$1.85. Heavyweight muslin.

Pequot (Pequot Mills, Salem, Mass.). \$1.84. Heavyweight muslin.

Golden Gate (Marshall Field & Co., Chicago). \$1.69. Heavyweight muslin.

Lady Pepperell (Pepperell Mfg. Co., Boston). \$1.94. Heavyweight muslin.

Hale's Castle (Hale Bros., San Francisco). \$1.85. Heavyweight muslin.

Cannon (Cannon Mills, Inc., NYC). \$1.39. Medium weight muslin.

Gimbels Gramercy (Gimbels Bros., NYC). \$1.94. Heavyweight muslin.

Penco (J. C. Penney Co., NYC). \$1.49. Heavyweight muslin.

Macy's Muslin (R. H. Macy & Co., Inc.). \$1.21. Medium weight muslin.

(Continued next page)

ACCEPTABLE—CONT'D

- Peerless Tavern** (J. P. Stevens & Co., NYC). \$1.59. Heavy-weight muslin.
- Hale's Iron Thread** (Hale Bros.). \$1.29. Medium weight muslin.
- Fruit of the Loom Colonial Dame** (Fruit of the Loom, Inc.). \$1.59. Medium weight muslin.
- Pacific Mills Truth** (Pacific Mills, NYC). \$1.69. Medium weight muslin.
- Penney's Nation-Wide** (J. C. Penney Co.). \$1.19. Medium weight muslin.
- AMC Consul** (Associated Merchandising Corp.)¹. \$1.54. Medium weight muslin.
- Wearwell** (Marshall Field & Co.). 94¢. 54 x 99 in. size. Medium weight muslin.
- Gimbel's Greeley** (Gimbel Bros.). \$1.49. Medium weight muslin.
- Bullock's Sleeper** (Bullock's, Los Angeles). \$1.60. Medium weight muslin.

PERCALES**ACCEPTABLE**

(In order of quality without regard to price)

- Utica Percale** (Utica & Mohawk Cotton Mills, Inc., Utica, N. Y.). \$2.99. Percale.
- AMC Regent** (Associated Merchandising Corp., NYC)¹. \$3.25. \$3.75 for 90 x 108 in. size. Percale.
- Wamsutta Supercale** (Wamsutta Mills, New Bedford, Mass.). \$4.45. Percale.
- Pepperell Princess** (Pepperell Mfg. Co., Boston). \$2.84. 90 x 108 in. size. Percale.
- Gimbel's Greymoor** (Gimbel Bros., NYC). \$3.25. 90 x 108 in. size. Percale.
- Macy's Supremacy** (R. H. Macy & Co., Inc., NYC). \$2.49. Percale.
- Cannon Fine Percale** (Cannon Mills, Inc., NYC). \$3.20. Percale.
- Pepperell Peeress** (Pepperell Mfg. Co.). \$3.30. Percale.
- Pequot Percale** (Pequot Mills, Salem, Mass.). \$2.10. High count.

ACCEPTABLE—CONT'D

- Bullock's Bel Air** (Bullock's, Los Angeles). \$2.30. High count.
- Macy's Percale** (R. H. Macy & Co., Inc.). \$1.46. High count.
- Mohawk Percale** (Utica & Mohawk Cotton Mills, Inc.). \$1.94. High count.
- Hale's Poppy** (Hale Bros., San Francisco). \$1.85. 74 x 108 in. size. High count.
- Nashua Indian Maiden** (Nashua Mfg. Co., Boston). \$2.30. 90 x 108 in. High count.
- Cannon** (Cannon Mills, Inc.). \$1.94. High count.
- Penney's Pencale** (J. C. Penney Co., NYC). \$1.98. High count.
- Gimbel's Gabrielle** (Gimbel Bros.). \$1.94. High count.
- Duracale** (Marshall Field & Co., Chicago). \$1.89. 90 x 108 in. size. High count.
- Pacific** (Pacific Mills, NYC). \$1.89. 90 x 108 in. size. High count.
- Fruit of the Loom Cameo** (Fruit of the Loom, Inc., Providence, R. I.). \$1.99. High count.
- AMC Aimcee** (Associated Merchandising Corp., NYC).¹ \$1.54. 90 x 108 in. size. High count.

WHITE BROADCLOTH SHIRTS

CU's tests in March 1942 showed that white broadcloth shirts had declined in quality since 1941, as evidenced by skimping of material in over half of those tested, while $\frac{1}{4}$ of them had risen in price.

Broadcloth is made in many thread counts, the better fabrics generally having the higher count. It can be woven of either one-ply or two-ply cotton threads. 1 x 1 (one ply in both warp and filling) broadcloth is used in most shirts. 2 x 2 yarns improve the appearance but not the wearing quality.

Nearly all the shirts tested were preshrunk, but it's still advisable to get a guarantee that residual shrinkage won't exceed 2%.

Construction of a shirt is as important as quality of its fabric. Badly fitting shirts are usually under strain and wear out quickly.

¹ For a list of AMC stores, see page 12.

(Continued next page)

Skimping of the yoke may cause a shirt to give way at the point where the back is sewn to the sleeve. The yoke seam should be curved slightly downward from the center of the back. The pleats or gathers that produce back fullness should be evenly distributed across the entire yoke or concentrated at each shoulder. Skimped chest measurements decrease the comfort and wear that a large-chested man will get from a shirt. Skimping in length will not affect the durability but it may cause the shirt to "creep out."

Correct collar height is important to the man with an extra long or extra short neck. A high collar on a short neck will wear out quickly because of extra friction at the neck fold. Collar points should lie flat and be evenly stitched. If poorly tailored, a collar does not stay even and soon wears out from the extra pressure required to iron it.

Permanently stiffened collars do not wilt, but they will wear out faster unless heavier material has been used in the collar. It is advisable to ask for some guarantee of lasting quality.

Lustrous pearl buttons, even in thickness and firmly attached, are one sign of good quality. Buttonholes should have no loose or rough edges and should be reinforced with a small bar of extra stitches at each end.

Sleeves should start at the end of the shoulder bone. They should be cut straight with the threads of the material running parallel to the top fold of the sleeve. Piecing of sleeves does not affect their wear or fit. In cuffs, the stitching at the sleeve end of the placket should be bar tacked to prevent tearing under normal strain. Plackets should be large enough for the cuff to be laid flat in ironing.

Over 30 brands of white broadcloth shirts, selling for up to about \$2, were examined. Two to three samples of each were tested for fit and shrinkage, tensile strength, resistance to abrasion, thread count and weight. Fit after washing was satisfactory, unless otherwise indicated.

New ratings of men's shirts will appear in the *Reports* early in 1943.

From the *Reports*, March 1942. (Labor notes included.)

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Reread them now and then.

BEST BUYS

The following shirts of the "Acceptable" list were judged to offer the best value for the money. They are in order of quality. For full details see listings under "Acceptable."

AMC. \$2.

Penney Towncraft. \$1.65.

Leeds. \$1.29.

ACCEPTABLE

(In order of quality without regard to price)

AMC (Associated Merchandising Corp.¹). \$2. Extra high thread count. Very good resistance to abrasion and high tensile strength. Shirt fit well after washing.

Hudson's Darwood (AMC shirt sold by J. L. Hudson, Detroit). \$2. Extra high thread count. Good resistance to abrasion and high tensile strength.

Fieldbilt Conway (Marshall Field & Co., Chicago). \$2. Extra high thread count. Good resistance to abrasion and good tensile strength.

Jayson Whitehall (F. Jacobson & Co., NYC). \$1.95; 3 for \$5.75. High thread count. Good resistance to abrasion and good tensile strength.

Penney Towncraft (J. C. Penney Stores). \$1.65. High thread count. Fair abrasion resistance, high tensile strength.

Gimbel Bros. Special (Gimbel Bros., NYC). \$1.69; 3 for \$5. High thread count. Good resistance to abrasion and good tensile strength.

Neweave (Fashion Shirt Corp., NYC). Available from Cooperative Distributors, NYC at \$1.69 or 3 for \$4.95, plus postage if ordered by mail. Extra high thread count. Good resistance to abrasion and high tensile strength.

Bullock's Westerly (Bullock's Dep't Store, Los Angeles). \$1.95. Extra high thread count. Good resistance to abrasion and good tensile strength. Skimped in length and chest measurements.

Macy's Lansdowne (R. H. Macy & Co., NYC). \$1.69. High thread count. Fair resistance to abrasion and good tensile strength.

Macy's Kempton (R. H. Macy & Co.). \$1.98. High thread count, two-ply yarn. Light weight fabric, making for low resistance to abrasion, but high tensile strength. Sleeve and collar larger than marked size.

¹ See page 12 for list of AMC stores.

(Continued next page)

ACCEPTABLE—CONT'D

Van Heusen Country (Phillips-Jones Corp., NYC). \$2. High thread count. Fair resistance to abrasion and fair tensile strength.

Hale Bros. Townsman (Hale Bros., San Francisco). \$1.59. High thread count. Good resistance to abrasion and good tensile strength. Skimped in length.

Ward's Pinehurst Cat. No.—2632. (Montgomery Ward). \$2.29; 2 for \$4.50 plus postage. Extra high thread count. Fair resistance to abrasion and good tensile strength. Sleeves and collar larger than marked size.

Penney Towncraft (J. C. Penney Stores). \$1.98. High thread count, two-ply yarn. Poor resistance to abrasion but high tensile strength.

May Co. (The May Co., Los Angeles). \$1.49. Medium thread count. Fair resistance to abrasion and good tensile strength.

Tarrytown (W. T. Grant Stores, NYC). \$1.59. Extra high thread count. Fair resistance to abrasion and good tensile strength.

Arrow Hitt (Cluett Peabody & Co., Troy, N. Y.). \$2. Medium thread count. Fair resistance to abrasion and high tensile strength. Material skimped in length of shirt.

Sears' Nobility Cat. No.—201 (Sears-Roebuck). \$2.59 plus postage. High thread count; two-ply yarn. Poor resistance to abrasion but high tensile strength. Collar larger than marked size.

CD's 2x2 (Cooperative Distributors, NYC). \$2.19; 3 for \$6.45 plus postage if ordered by mail. High thread count, two-ply yarn. Poor resistance to abrasion, but very high tensile strength.

CD (Cooperative Distributors). \$1.35; 3 for \$3.85 plus postage if ordered by mail. Medium thread count. Fair resistance to abrasion and fair tensile strength. Material skimped in length of shirt.

Gimbel's Wyndham (Gimbel Bros.). \$1.49. Medium thread count. Good resistance to abrasion and fair tensile strength. Material very much skimped in length.

Leeds (Schulte Cigar Stores, NYC). \$1.29; 3 for \$3.75. Extra high thread count. Good resistance to abrasion, and fair tensile strength. Material skimped in length.

Bullock's Mil-Test (Bullock's Dep't Store). \$1.45; 3 for \$4.25. Samples varied from low to medium thread count. Good resistance to abrasion and fair tensile strength.

ACCEPTABLE—CONT'D

Material skimped in length of shirt; sleeves larger than marked size.

Wings (Piedmont Shirt Co., Greenville, S. C.). \$1.65. Medium thread count. Good resistance to abrasion and fair tensile strength. Material skimped in length.

Collarite (Phillips-Jones Corp.). \$1.65. Medium thread count. Fair resistance to abrasion and fair tensile strength.

Fruit of the Loom (Fruit of the Loom, Inc., NYC). \$1.65. Medium thread count. Poor resistance to abrasion and fair tensile strength.

Campus Square (Sam's Cut Rate Stores, Detroit). \$1.29; 3 for \$3.75. Medium thread count. Fair resistance to abrasion and fair tensile strength. Material skimped in length.

Tru Val (Tru Val Mfrs., Inc., NYC). \$1.55. Medium thread count. Fair resistance to abrasion and good tensile strength. Material skimped in length.

Tru Val (Tru Val Mfrs., Inc.). \$1.85. Medium thread count. Fair resistance to abrasion and good tensile strength. Material skimped in length; collar larger than marked size. Appeared to be same shirt as \$1.55 *Tru Val* above.

Manhattan (Manhattan Shirt Co., NYC). \$2.25. Medium thread count. Poor resistance to abrasion and fair tensile strength. Material skimped in length; collar larger than marked size.

Seamont (W. T. Grant Stores). 88¢. Low thread count. Good resistance to abrasion but filling had low tensile strength. Collar larger than marked size. Sleeve placket so made that it may tear when being ironed.

WORK SHIRTS

CU's tests indicate that chambray work shirts (about 60% of all work shirts sold) have consistently higher tensile strength, higher thread count and better resistance to abrasion than covert, the other leading fabric. Whatever the fabric, it should be tightly woven and should be guaranteed against shrinkage.

Buttons (preferably four-hole) should be well secured and button holes should be bar-tacked to prevent raveling. There should be at least five buttons and button holes, evenly spaced, along the front of the shirt, and the panel holding the buttons

should be of double fabric. Two buttons at the collar make for additional comfort.

Sleeves should be set into the shirt evenly. The placket at the wrist of a long sleeve should be large enough for the cuff to be laid out flat without straining. The sleeve seam should be bar-tacked at the top of the placket, or a continuous piece of material should be inserted on the inside, to prevent tearing.

A WPB order has limited stitching on work shirts to two rows and eliminated flaps over the pockets.

Frequent laundering, before they're very dirty, will cut down laundry wear on work shirts.

In rating, the following factors were considered: label claims, size, shrinkage, buttons and button holes, presence or absence of reinforcements and ventilators and number of stitches per inch; weight of material, its thread count, tensile strength and resistance to abrasion; fit before and after washing.

None of the shirts tested conformed to fit and shrinkage requirements of Federal Specifications for "Shirts Other Than Work Shirts." Even with modified and relaxed specifications, 43 of the 86 shirts tested (including 12 marked "sanforized") shrank beyond any reasonable limit.

From the *Reports*, August 1942. (Labor notes included.)

BEST BUYS

The following shirts of the "Acceptable" list were judged to offer the best value for the money. For full details see listings under "Acceptable."

Hale Brothers Double Duty. Chambray. \$1.19.
Ward's Cat. No. 3083. Chambray. 74¢ plus postage.

ACCEPTABLE

(In approximate order of quality without regard to price)

Double Duty (Hale Bros., San Francisco). \$1.19. High count chambray.

Quality Tested (R. H. Macy & Co., NYC). \$1.79. High count chambray.

Quality Tested (R. H. Macy & Co.) \$1.79. High count covert

Double Duty (Hale Bros.). \$1.19. High count covert.

Oshkosh B'Gosh (Oshkosh B'Gosh, Oshkosh, Wisc.). \$1.39
High count chambray.

Pioneer Cat. No. 3225 (Montgomery Ward & Co., Albany,

ACCEPTABLE—CONT'D

- NY). \$1.29 plus postage. High count chambray.
Pay Day (J. C. Penney Stores). \$1.19. High count chambray.
Oshkosh B'Gosh (Oshkosh B'Gosh, Inc.). \$1.39. High count covert.
Iron Ace (The Fair, Chicago). 98¢. High count chambray.
Pioneer Cat. No. 3202 (Montgomery Ward & Co.). \$1.05 plus postage. High count covert.
Ward's Cat. No. 3083 (Montgomery Ward & Co.). 74¢ plus postage. High count chambray.
King Bee (W. T. Grant Stores). 98¢. High count covert.
Kay-Do (Kaufman's Department Store, Pittsburgh). \$1.39. Low count covert.
Iron Ace (The Fair, Chicago). 98¢. High count covert.
Super Ox Hide (J. C. Penney Stores). 79¢. High count covert.
Kay-Do (Kaufman's Department Store). \$1.39. High count chambray.
Sweet-Orr (Sweet-Orr & Co., Inc.). \$1.39. High count covert.

NOT ACCEPTABLE

The following shirts would be considered "Acceptable" except for excessive skimping or bad fit after washing.

- Red Star** (R. H. Macy & Co.). \$1.29. High count chambray. Skimped in size.
Red Star (R. H. Macy & Co.). \$1.29. High count covert. Skimped excessively in chest, length and yoke measurements and large in collar.
Par-Val (W. T. Grant Co.). 98¢. Shirt showed variation. One shirt marked sanforized was a high count chambray; skimped excessively in chest, length, yoke and collar. The other was a high count chambray; skimped excessively in chest, length, sleeve, yoke, armhole, and collar.
Sweet-Orr (Sweet-Orr & Co., Inc.). \$1.39. Low count chambray. Skimped in chest, length, armhole and collar.
Pay Day (J. C. Penney & Co.). \$1.19. High count covert. Skimped excessively in chest, length, and yoke; collar cut extra large.
The Brave-Man (Cohen-Fein Co.). \$1.29. Low count covert. Skimped in chest, length, sleeve, yoke, armhole and collar.
Fair and Square (Frank & Seder). 98¢. Low count chambray. Skimped in chest, length, sleeve, armhole and collar.
Ward's Cat. No. 3082 (Montgomery Ward & Co.). 74¢. High

NOT ACCEPTABLE—CONT'D

count covert. Skimped excessively in chest, length, yoke, armhole and collar.

The Brave-Man (Cohen-Fein Co.). \$1.29. High count chambray. Skimped in length, sleeve, yoke, and collar.

Melton (Melton Shirt Co.). \$1.39. Low count chambray. Skimped in chest, length, sleeve, yoke, armhole and collar.

Melton (Melton Shirt Co.). \$1.39. Low count covert. Skimped in chest, length, sleeve, yoke, armhole and collar.

Uncle Sam (Arbuthnot-Stephenson Co.). \$1.25. Low count covert. Skimped in chest, length, sleeve, yoke and collar.

Super Ox Hide (J. C. Penney & Co.). 79¢. High count chambray. Skimped excessively in chest, length, yoke and collar.

Auto-Brand (Lewis Meier & Co.). 95¢. High count chambray.

Material shrank excessively and was skimped in length, sleeve, armhole, and collar.

Sturdy Oak Cat. No. 613 (Sears-Roebuck & Co.). 79¢ plus postage. High count chambray. Skimped in chest, length, sleeve, yoke and collar.

Lee (H. D. Lee Mercantile Co.). \$1.39. Low count covert. Skimped in chest, length, sleeve, yoke, armhole and collar.

Uncle Sam (Arbuthnot-Stephenson Co.). \$1. High count chambray. Skimped in chest, length, sleeve, yoke and collar.

Big Yank (Reliance Mfg. Co.). \$1. Shirts varied in construction. One was high and one was low count chambray. Both were skimped in chest, length, sleeve, yoke, armhole and collar.

Sturdy Oak Cat. No. 613 (Sears-Roebuck & Co.) 79¢ plus postage. High count covert. Skimped in length, sleeve, yoke, armhole and collar.

Big Yank (Reliance Mfg. Co.). \$1. High count covert. Skimped in chest, length, sleeve, yoke and collar.

Auto-Brand (Lewis Meier & Co.). \$1.35. High count chambray. Skimped in chest, yoke and armhole. Cut large in collar.

Fair and Square (Frank & Seder). 98¢. Low count covert. Skimped in chest, length, sleeve, yoke, armhole and collar.

Headlight (Crown Overall Mfg. Co.). \$1.40. High count chambray. Skimped in chest, length, sleeve, yoke, armhole and collar.

Headlight (Crown Overall Mfg. Co.). \$1.40. Low count covert. Skimped in chest, length, sleeve, armhole and collar.

SHOES

Your chances of getting a good fit will be considerably better if you do not trust size numbers. To get the approximate size insist that the salesman measure both your feet *while you are standing*. Stand and walk in *both* shoes and don't buy until you are completely satisfied. Feet of the same length and width may vary in other proportions.

A good rule is that a shoe should be loose in the toes and tight at the heel. The shoe should fit snugly around the instep. Properly fitted shoes do not need "breaking in."

With children's shoes proper fit is especially important. They should fit comfortably at the time of purchase. A half-inch margin in length should be allowed for three or four months' growth; a greater margin is not desirable. Light and flexible leathers are better for the feet than the more durable but heavy and stiff leathers.

Infants do not need leather shoes until they have learned to walk, and the first pairs should be very soft and flexible.

If you buy mail-order shoes, you should be ready to return them as many times as necessary to obtain a satisfactory fit.

Never buy corrective shoes on the advice of the salesman. A competent orthopedic physician is the only person qualified to determine whether or not the use of special supports for correcting foot disorders is desirable.

Shortages of leather have brought about a sharp decline in both the quantity and quality of shoes. Heavy leather soles are reserved entirely for military needs. The soles of civilian shoes are either of very thin leather or of substitutes. Only re-used rubber may be used for heels. Styles and colors of women's shoes are limited; metal ornaments are banned. Leatherette, fabric and paper fiber will probably be used even more widely in place of leather.

Several devices sold in the 5-&-10¢ stores will prolong the wear of soles and heels. Thin rubber soles can be applied with rubber cement over the regular shoe sole. They can be used over worn soles, but it's better to put them over new or slightly worn soles, to keep the original sole from wearing through. CU tested two brands: *Stick-on* and *Slipknot*, both 10¢ a pair. They come in different sizes for men's, women's and children's shoes. Care must be taken to fasten the edges firmly to the regular sole with plenty of rubber cement. If

available sizes don't fit your shoe exactly, buy a larger rather than a smaller size and trim it to about $\frac{1}{4}$ inch smaller than the shoe sole all around. If the toe scuffs loose, roughen the surface of the shoe sole and reapply cement.

CU also tested rubber putty (*So-lo* brand), which can be used to build up a worn rubber heel.

From the *Reports*, May 1942.

See page 99 for information on proper methods of cleaning various types of leather shoes.

MEN'S WOVEN AND KNIT SHORTS

As this book goes to press, tests of men's shorts are under way in CU's laboratories. Results with ratings of brands will be printed in the *Reports* early in 1943.

When buying shorts, bear in mind the following points:

To be comfortable, woven shorts should be full-cut and roomy, with no seams at the crotch and no rough seams any place. Shorts should fit both before and after laundering.

Knit shorts should also be full-cut, with comfortable fly openings, and should be long enough to extend to the waist without constriction at the crotch. Men who like snug-fitting shorts generally prefer knitted shorts with a 2 x 2 rib; a flat knit is preferred by men who like a looser fit.

For durability the fabric should be tightly woven or knit so that no sleazy areas can be detected when the shorts are held up to the light. Seams should be well sewn with small, even stitches, and in knit shorts, the stitches should be elastic enough to stretch with the material. Among the fabrics used in woven shorts, broadcloth and madras generally wear better than cotton prints, although in past tests CU has found some good quality prints.

Snap fasteners ("Grippers," etc.) are more satisfactory than buttons. Synthetic buttons tend to wear longer than the usual grade of pearl buttons found on woven shorts.

From the *Reports*, August 1941. (Labor notes included.)

RAYON SLIPS

Rayon slips offer an excellent substitute for silk in both appearance and wearing qualities.

To be assured of a proper fit in a slip, you must try it on

before you buy. Be sure that the bustline fits smoothly without straining. See that the underarm neither cuts nor hangs too loosely. The length should be correct without too much adjustment of the shoulder straps. If regular sized slips are too long, look for the in-between sizes offered in some brands. The only alternative is to do the necessary shortening at the hemline.

Adjustable shoulder straps are desirable to regulate the shoulder-to-bust measurement, though adjustment of more than an inch is not satisfactory. Be sure that shoulder straps are firmly attached to the body of the slip.

Slips cut of a single piece of material, shaped by means of tucks, are usually straight-cut and seldom fit smoothly. Those with two-piece or four-piece skirts are usually bias-cut and should fit much better. Four-gore slips have less tendency to twist or ride up in the back than do two-piece slips.

Bias construction makes for stronger seams. Seams sewn with a tight lockstitch are stronger than handsewn or fagoted ones.

Slips with lace-trimmed tops are more difficult to iron than those with plain tops. Any slip you buy ought to be guaranteed against shrinkage; get a guarantee of colorfastness to laundering, too, if it is a colored one.

Check the label to see what material the slip is made of. The label should have instructions for washing; in case it doesn't, the following apply:

Since rayon tends to be weak when wet, handle it with care. Never let a slip become so badly soiled that it requires strenuous laundering. Pressing suds through the garment without rubbing should remove all the dirt. Use mild, neutral soap or soap flakes without builder. Rinse at least twice; squeeze excess water from the fabric; never wring. Iron all except acetate slips on the wrong side while damp, with a warm but not hot iron. Acetate slips may be ironed on the wrong side when dry, with a warm iron; if they are ironed damp, there must be a thin cloth between iron and slip.

Of the slips tested, the satins were, on the average, slightly stronger than the crepes, though in many individual cases the crepes had a slight edge in strength.

Since a War Production Board order has curtailed the use of fabrics, slips with shadow panels are no longer being made.

CU's tests included laboratory examination for thread count, weight, tensile strength, resistance to abrasion, strength of

seams and shrinkage in washing. General construction details, including number of gores, adjustability of straps, cut of material (whether bias or not) and other points were also noted and included in the ratings.

From the *Reports*, October 1942. (Labor notes included.)

RAYON SATIN

BEST BUYS

The following slips of the "Acceptable" list were judged to offer the best value for the money in the order given. See listings below for full details.

Barbara Lee. \$1.98.

Bryn Belle. \$1.95.

Seamprufe. \$1.98.

Fray Pruf. \$2.00.

Charmode Francine. \$1.29 plus postage.

Charmode Desirables. \$1.67 plus postage.

ACCEPTABLE

(In approximate order of quality without regard to price)

Barbara Lee (Associated Merchandising Corp.¹). \$1.98. Four-gore, bias-cut; adjustable straps; viscose and acetate rayon.

Joyce (Barbizon Corp., NYC). \$2.25. 2-gore, bias cut; non-adjustable straps; delustered bemberg rayon.

Seamprufe (Aronson-Caplin Co., Inc., NYC). \$1.98. 4-gore, bias cut; elastic adjustable straps; delustered viscose and acetate rayon.

Holebroke (Barbizon Corp.). \$2.50. 2-gore, bias cut; non-adjustable straps; delustered bemberg and acetate rayon.

Bryn Belle (Barbizon Corp.). \$1.95. 4-gore, bias cut; adjustable straps; bemberg rayon.

Topsy (Miss Swank, Inc., NYC). \$2.25. 4-gore, front and back bias cut, sides cut on straight; adjustable straps; viscose and acetate rayon.

Rhythm Romancer (Patricia Petticoat Co., NYC). \$2.95. 2-gore, bias cut; adjustable straps; delustered bemberg and acetate rayon.

Fray Pruf (David Korn & Co., NYC). \$2.00. 6-gore, bias cut; adjustable straps; viscose and acetate rayon.

¹ For a list of AMC Stores, see page 12.

ACCEPTABLE—CONT'D

- Radelle Strait-Ace** (Sussberg & Feinberg, NYC). \$2.98. 2-gore, front straight, back bias cut; adjustable shoulder straps; delustered bemberg and acetate rayon.
- Trillium Finefit** (Tailored Silk Undergarment Co., NYC). \$1.98. 4-gore, cut on straight; adjustable straps; delustered viscose and acetate rayon.
- Mary Barron** (Davidson Bros., NYC). \$1.98. 2-gore, front cut on straight, back bias cut; adjustable straps; bemberg rayon.
- Flexo-Seam** (Aronson-Caplin Co.). \$2.98. 2-gore, cut on straight; adjustable straps; delustered viscose and acetate rayon.
- Charmode Desirables** Cat. No. 3568 (Sears-Roebeck & Co., Philadelphia). \$1.67 plus postage. 4-gore, bias cut; adjustable straps; delustered viscose and acetate rayon.
- Charmode Francine** Cat. No. 3925 (Sears-Roebeck & Co.). \$1.29 plus postage. 4-gore, bias cut; adjustable straps; delustered viscose and acetate rayon.
- Fray Pruf** (David Korn & Co. Available at Cooperative Distributors, 114 E. 16 St., NYC). \$1.95. 2-gore, bias cut; adjustable straps; delustered viscose and acetate rayon. Material and construction not the same as *Fray Pruf* above.
- Kayser** (Kayser Stores, Inc., NYC). \$1.98. 2-gore, bias cut; adjustable straps; acetate rayon.
- Ward's** Cat. No. 6683 (Montgomery Ward & Co., Chicago). \$1.59 plus postage. 4-gore, bias cut; adjustable straps; acetate rayon.
- DurOSeam** (Cooperative Distributors, NYC). CU samples were purchased at \$1.65; remaining stock on sale at \$1.29. 4-gore, bias cut; adjustable straps; acetate rayon.
- Miss Collegiate** (Collegiate Mfg. Co., NYC). \$2.25. 2-gore, bias cut; adjustable straps; acetate rayon.
- Stainless** (Ralco Undergarment Co., NYC). \$1.59. 2-gore, bias cut; adjustable straps; acetate rayon.
- Penney's** (J. C. Penney Co. Stores, NYC). \$1.29. 4-gore, bias cut; adjustable straps; delustered viscose and acetate rayon.
- Fruit of the Loom** (Fruit of the Loom, Inc., Providence) \$1.29. 4-gore, bias cut; adjustable strap; acetate rayon.
- Bra-Z-Slip** (F. W. Woolworth Stores). \$1.00. 2-gore, bias cut; adjustable straps; acetate rayon.
- Miss America** (Vogue Lingerie Co., NYC). 69¢. 2-gore, bias cut; adjustable straps; delustered viscose and acetate rayon.

(Continued next page)

RAYON CREPE

BEST BUYS

The following slips of the "Acceptable" list were judged to offer the best value for the money in the order given. See listings below for full details.

Ward's Cat. No. 6671. \$1.29 plus postage.

Woolworth. 79¢.

ACCEPTABLE

(In approximate order of quality without regard to price)

Ward's Cat. No. 6671 (Montgomery Ward & Co., Chicago). \$1.29 plus postage. 4-gore, bias cut; adjustable straps; delustered viscose rayon.

Yolande (Lande & Miskend Co., NYC). \$3.98. 2-gore, bias cut; non-adjustable straps; delustered viscose and acetate rayon.

Barbara Lee (Associated Merchandising Corp.). \$1.98. 4-gore, bias cut; adjustable straps; viscose and acetate rayon.

Syl-O-Slip (M. C. Schrank Co., NYC). \$1.39. A one-piece wrap-around panel cut on the straight, delustered viscose

Fashion Stride (M. C. Schrank Co., NYC). \$1.49. 2-gore, bias cut; adjustable straps; delustered viscose rayon.

Rhythm Romancer (Patricia Petticoat Co., NYC). \$2.95. 2-gore, bias cut; adjustable straps; viscose and acetate rayon.

Radelle Strait-Ace (Sussberg & Feinberg, Inc., NYC). \$2.98. 2-gore, front cut on straight, back bias cut; non-adjustable straps; viscose and acetate rayon.

Ritemore (Barbizon Corp., NYC). \$1.65. 4-gore, bias cut; adjustable straps; delustered viscose rayon.

Charmode Francine Cat. No. 3611 (Sears-Roebuck & Co., Philadelphia). \$1.29 plus postage. 4-gore, bias cut; adjustable straps; delustered viscose rayon.

Cynthia (J. C. Penney Co. Stores). \$1.29. 4-gore, cut on straight; adjustable straps; delustered viscose rayon.

Mary Barron (Davidson Bros., NYC). \$1.98. One-piece, cut on slight bias; adjustable straps; viscose and acetate rayon.

Fray Pruf (David Korn & Co., Inc., NYC. Available at Co-operative Distributors, 114 E. 16 St., NYC). \$2.11. 4-gore, bias cut; adjustable straps; viscose and acetate rayon.

Miss Collegiate (Collegiate Mfg. Co., NYC). \$2.25. 2-gore, bias cut; adjustable straps; viscose and acetate rayon.

ACCEPTABLE—CONT'D

- Woolworth** (F. W. Woolworth Stores). 79¢. 4-gore, bias cut; adjustable straps; delustered viscose rayon.
- Seamprufe** (Aronson-Caplin Co., Inc., NYC). \$1.98. 4-gore, bias cut; elastic adjustable straps; viscose and acetate rayon.
- Barbara Lee** (Associated Merchandising Corp.¹). \$1.98. 4-gore, bias cut; adjustable straps; viscose and acetate rayon.
- Fray Pruf** (David Korn & Co., Inc.). \$2.25. 2-gore, bias cut; adjustable straps; viscose and acetate rayon. Material is similar but construction is different from *Fray Pruf* mentioned above.
- Topsy** (Miss Swank, Inc., NYC). \$2.25. 4-gore, front and back bias cut, sides cut on straight; adjustable straps; delustered viscose and acetate rayon.
- Newform** (Lerners, Inc., NYC). \$1.98. 4-gore, bias cut, adjustable straps; viscose and acetate rayon.
- Trillium Sharloo** (Tailored Silk Undergarment Co., NYC). \$2.15. 2-gore, front cut on straight, back on bias; adjustable straps; viscose and delustered acetate rayon.
- Kayser** (Kayser Stores Inc., NYC). \$1.98. 2-gore, bias cut; adjustable straps; delustered viscose and acetate rayon.
- Trillium Trilco** (Tailored Silk Undergarment Co.). \$2.25. 4-gore, bias cut; non-adjustable straps; viscose and acetate rayon.
- Bryn Chic** (Barbizon Corp.). \$2.50. 4-gore, bias cut; non-adjustable straps; delustered bemberg and delustered acetate rayon.
- DurOSeam** (Cooperative Distributors, NYC). \$1.65. 4-gore, bias cut; adjustable straps; viscose and acetate rayon.
- Bryn Fair** (Barbizon Corp.). \$1.98. 4-gore, bias cut; non-adjustable straps; delustered bemberg and delustered acetate rayon.
- Primfit** (Barbizon Corp.). \$1.98. 4-gore, cut on the straight; adjustable straps; delustered bemberg and acetate rayon.
- Marbury** (Barbizon Corp.). \$2.25. 2-gore, bias cut; non-adjustable straps; delustered bemberg and acetate rayon.
- Fruit of the Loom** (Fruit of the Loom, Inc., Providence, R. I.). \$1.59. 4-gore, bias cut; adjustable straps; viscose and acetate rayon.
- Syl-O-Slip** (M. C. Schrank Co.). \$1.39. A one-piece wrap-around panel cut on the straight; delustered viscose rayon.
- Miss America** (Vogue Lingerie Co., NYC). 69¢. 2-gore, bias cut; adjustable straps; delustered viscose rayon.

MEN'S SOCKS

For the sake of comfort and economy, it is essential to buy the right size socks. Consult the table below, and if you can't be fitted perfectly by the standard sizes, get a larger, rather than a smaller size.

| SHOE SIZE | SOCK SIZE |
|-----------|-----------|
| 5½- 6 | 9½ |
| 6½- 7 | 10 |
| 7½- 8 | 10½ |
| 8½- 9 | 11 |
| 9½-10 | 11½ |
| 10½-11 | 12 |
| * 11½-12 | 13 |

How well socks wear depends largely on their fiber content. CU tests showed that cotton or lisle hose, reinforced at the heel and toe, were by far the best buys in this respect. Nylon and unweighted silks wear just as well and are lighter, but if available at all, they are considerably more expensive. Rayon mixed with cotton is good looking but doesn't wear so well, because foot perspiration weakens rayon fibers.

Heel reinforcements are important, but if they are skimped, the points where the reinforcements meet the rest of the sock will wear out faster than if there were no reinforcement at all. Special reinforcement (heel splice) above the heel pocket is an absolute necessity in finely knit rayon, silk or lisle hosiery.

Avoid complicated patterns; they may weaken the fabric. Designs made by reverse plating do not impair the wearing quality. If this method is used, the weave on the inside of the sock is the same as on the outside except that the colors are reversed.

To minimize the destructive effects of perspiration, socks should be washed soon after each wearing with mild laundry soap and not-too-hot water. It's best not to wash socks of different colors together since many are not colorfast.

From the *Reports*, July 1941.

SPOT AND STAIN REMOVAL

For successful removal of spots and stains, first analyze the stain and the fabric. Otherwise you may use an agent which will "set" the stain permanently or damage the fabric. Remove

stains when they are fresh. Experiment with a cleaning agent first on unexposed portions of material. Use agents sparingly; work rapidly.

Cotton and linen should never be treated with strong acids. If dilute acids are used, they must be neutralized afterward with a weak alkali like ammonia water, and removed by thorough rinsing. Alkalies and hot water may be used, but materials should not be exposed to them for too long a time. Bleaching agents should be used sparingly, never in concentrated form or for extended periods of time.

Wool and silk can be treated with dilute acids, except nitric; but strong alkalies, washing soda, strongly alkaline soap or very hot water must be avoided. Excessive rubbing damages both silk and wool.

Rayon fabrics must be handled very gently, since they become weak when wet. Dilute acids are generally not harmful, but strong acids, bleaching agents or alkaline solutions must not be used. Never use solutions containing acetone, chloroform, or ether on acetate rayon; never use very hot water on any rayon fabrics.

Colored fabrics should be treated rapidly and rinsed thoroughly, because chemicals strong enough to remove stains will usually attack dyestuffs. If the color changes shade when treated with an acid, the original color can often be restored with a weak alkali like ammonia solution or ammonia fumes. Acetic acid often restores a color changed by alkalies.

In general there are three types of cleaning agents: absorbents, solvents and bleaches.

Condensed from U.S. Dep't of Agric's *Consumers Guide*.

ABSORBENTS

Fuller's earth, cornmeal, chalk are harmless to all fibers and easy to apply. For best results spread on the spot when the stain is fresh or still moist. The absorbent acts like blotting paper in taking up the stain.

SOLVENTS

Use water wherever possible. Spots even on unwashable materials can sometimes be sponged off with water. Boiling

130 STAIN REMOVAL

water poured from a height of three or four feet is especially effective for removing fresh coffee, tea and fruit stains from colorfast or white cotton or linen material. Hold stained portion taut over a bowl with an elastic band or string.

Carbon tetrachloride, the safest of grease solvents, is unavailable at present. Gasoline, naphtha, benzene, acetone and ether are dangerously inflammable and should never be used in the home in large quantities. When used for small stains, be sure to keep all flames or sparks away from them, and if possible, use them out of doors. Turpentine is useful for paint stains.

When applying grease solvents, or when removing readily dissolved stains, use *pad and sponge* method. Brush off all dirt. Turn stained material inside out. Place it on a clean absorbent pad. Dip sponging cloth in cleaning fluid, press out excess moisture, then apply to stain in light strokes, working from the outside towards the center of the spot. Change absorbent pad and sponge frequently. When treating colored materials, use a sponge of the same material if possible.

To avoid rings: Spread or "feather" the liquid into the fabric surrounding the stain until there is no definite edge where the material dries. Do not use too much solvent at a time. Blow on stain when working. Brush material with a dry rag. Finish drying process by hanging material in stiff breeze or before electric fan. Use same type of material for sponge as the stained material. Work rapidly, but get all stain out.

To remove water rings: Rub edge of ring lightly with fingernail or edge of spoon. Or apply steam; tie cheesecloth over spout of teakettle, bring water to a boil in the kettle, and hold ringed spot over the spout until it is moist. Shake dry and press.

BLEACHES

Sunlight is the simplest and safest. Other bleaches in addition to household bleach (sodium hypochlorite) include lemon juice, lemon juice and salt, acetic acid, ammonia, hydrogen peroxide, hydrosulfites (photographer's "hypo"), oxalic acid.

Acetic acid solution: Add 2 tablespoons of 5% solution to a quart of water.

Ammonia: Do not use ordinary household ammonia; get 10% ammonium hydroxide, chemically pure. For delicate fabrics dilute to half strength.

Hydrogen peroxide: Buy solution used for medical purposes; alkalize it just before using with a few drops of ammonia. This mild bleach may be used on silk and wool as well as on cotton and linen.

Hydrosulfites: These come in powdered form. Keep dry, in tightly closed cans. To use, moisten and work directly on stain, or dissolve in water—one teaspoon to a cup of water. These compounds will remove many non-greasy stains. Use on colors only after testing; then work rapidly and rinse thoroughly.

Oxalic acid (poison): Buy from drugstores in crystal form. Dissolve as many crystals as possible in lukewarm water. Keep in tightly corked bottle. Never allow to dry on fabric. Rinse first and then neutralize acid with ammonia solution.

When any bleach is used, the work must be done as rapidly as possible. To remove stubborn stains, use one of these two methods:

Bowl method: Stretch the material over a bowl of lukewarm water, holding it in place by elastic band. If bleach is soluble in water, moisten stain first with water, then apply the agent with a medicine dropper. If acid solution is applied first, follow immediately by alkali solution—or vice versa. Use a separate medicine dropper for each solution. After the spot has been removed, *rinse material thoroughly*.

Rod method: Place stained portion on absorbent pad. Apply alkali and then acid with glass rod with blunted ends. Rinse thoroughly.

• BLOOD STAINS

Always use cold water first.

Washable cotton and linens: Soak in cold, wash in hot water.

Delicate fabrics: Sponge with cold or lukewarm water. To remove last traces of blood stain, sponge with alkaline hydrogen peroxide.

Heavy materials (blankets, etc.): Make a paste of raw starch and cold water. Apply to stain and brush off when dry. Repeat if necessary.

(Continued next page)

• FRUITS AND BERRIES

Washable cotton and linen: Use boiling water. Then moisten stain with lemon juice; put in bright sunlight. For blue-gray stain which does not come out with boiling water, treat with oxalic acid, then ammonia solution, then boiling water, using bowl method.

Silk and wool and colored fabrics: Spread material over bowl of steaming hot water to which a few drops of ammonia have been added. Apply hydrogen peroxide with medicine dropper at about five minute intervals. Test colors first.

• GRASS, DANDELIONS, OTHER FOLIAGE

Washable materials: Use hot water, soap; rub stain vigorously. On white cotton and linen, bleach out remaining stain with household bleach.

Other fabrics except acetate rayon: Use ether or wood or denatured alcohol, pad method. (Alcohol affects some dyes. Experiment first).

• GREASE AND OILS

Always scrape off as much grease as possible from stained fabric first.

Washable materials: Wash with warm water and yellow laundry soap.

Absorbents are effective only on oil and grease spots that are not mixed with dirt or metal. They are convenient to use on rugs and other heavy materials.

Delicate materials: Spread paste of white absorbent powder and a solvent over spot. Or use pad method with grease solvent; use small quantities of solvent at a time, and rub spot with clean cloth until thoroughly dry.

• INK

(Chemical composition of inks varies. Some are impossible to remove.)

Marking ink (type which must be exposed to sun or ironed before marked article is washed):

White cotton and linen: Use household bleach—bowl method. Then soak in ammonia solution.

Writing ink: Try several methods; start with the simplest and the one least likely to injure a fabric.

Absorbent: Work absorbent around with blunt instrument. Renew absorbent when it becomes soiled. When dry absorbent no longer removes ink, make it into a paste with water, and apply again.

Soap and water are often satisfactory if material is washable.

Milk: Soak stains for a day or two, changing the milk as it becomes discolored.

Oxalic acid: Soak stains for a few seconds in a saturated solution of oxalic acid (acid crystals dissolved in as little water as possible), rinse in clear water, and then in water to which a few drops of concentrated ammonia have been added.

Household bleach: Use on white cotton and linen only.

Commercial ink removers: Follow directions carefully and rinse material thoroughly after treatment.

• IRON RUST

White materials: Put stained fabric over bowl of boiling water; squeeze lemon juice on the spot. Allow juice to remain for a few minutes. Rinse. Repeat the process. Or, sprinkle the stain with salt, moisten with lemon and place in the sun. Add more juice if necessary.

Colored materials: Experiment first with unexposed portion before using above methods.

• MILDEW

Mildew spots must be treated when fresh to avoid injury to the fabric.

Washable fabrics: Wash with soap and water and dry in the sun. If slight stains remain, soak in sour milk overnight, bleach in sun, or moisten stain with lemon juice and salt and bleach in sun. Old stains on white linen and cotton can be bleached out with household bleach.

• PAINTS

Oil paints, varnishes, enamels

Washable materials: Remove fresh stains with soap and water and vigorous rubbing. Or sponge stain or wash whole article in turpentine. For old stains, try rubbing lard into the stain and then washing with soap and water. Or moisten stain with ammonia solution, sprinkle with turpentine, roll article

up for 15 to 20 minutes. Soak for several hours, then wash with warm soap and water.

Delicate fabrics: Sponge or soak entire article in carbon tetrachloride, chloroform or benzene.

Alcohol paints or stains

Washable fabrics: For fresh stains, use soap and water. For old stains, soak stain for half an hour in strong ammonia and then wash.

Delicate fabrics: Use wood or denatured alcohol, pad method.

Water color paints

Washable materials: Use soap and water.

Delicate fabrics: Sponge stain with turpentine to remove water color, then with benzene to remove turpentine. Or dip stain in gasoline.

• SCORCH

Washable cotton and linen: Wet spot with water and expose to sun as long as necessary.

Any white fabric: Dampen a white cotton cloth with hydrogen peroxide and place over the stain. Place a clean dry cloth over it and then press with a medium warm iron. Do not iron directly on the cloth moistened with peroxide, or rust stains on the garment will result.

Woolen material: Brush lightly with emery paper.

MEN'S SUITS

All-wool suitings can still be found, but aralac, rayon and cotton are being mixed with wool in many suiting fabrics. An all-wool fabric will be superior in warmth and crush-resistance to any of these, although some of the aralac mixtures have fairly satisfactory appearance and wearing qualities.

The wool labeling law helps consumers to get some idea of what goes into a suit, but it fails to provide adequate information. The law requires that any fabric containing wool must bear a label stating the percentage of wool contained; whether it is new, reused or reprocessed wool and the percentage of rayon, cotton, silk or other fiber present in the fabric. The label need not give any indication of the count, weight or strength of the fabric, nor must it tell anything about the quality of the original wool used.

"Reprocessed" refers to wool which has been woven into unused cloth, and has never been used. "Reused" wool comes from cloth which has been used at some time. Both types are treated to remove fibers other than wool and then passed through a machine which restores the wool to its original unspun fiber state. During this process the wool loses some of its resiliency, staple length and crinkle. Nevertheless, good re-processed or reused wool may give better wear than low quality new wool.

Two types of yarn are used in suit fabrics: worsted and plain woolen. In worsted wool, fibers of similar length are placed together and then twisted into yarns. In woolen yarns, fibers of varying lengths are twisted together. Worsted yarns, used mainly for serges, gabardines and the like, wear better than plain woolen fabrics. But woolen yarns, if tightly woven in tweeds and twists, also give excellent service.

Production of suits is subject to War Production Board restrictions. Two-trouser suits are banned, as are yokes, gussets and belted backs in jackets. No patch pockets of wool cloth are permitted, and vests are prohibited with double-breasted woolen suits. Trousers on woolen suits may not have cuffs, nor may there be material for more than a three-inch turn-up at the bottom. Trouser width is limited, and waistbands may not be pleated or tacked.

Workmanship. To the average consumer, judgment of much of the workmanship is impossible, since it is invisible. Several points however, can and should be looked for. The outlets at the trouser seams should be generous, as should coat-cuff lining for lengthening the sleeves. Handle the coat front and lapels; they should feel resilient but not stiff or boardy (these qualities constitute a "boiler front"). Finally, the outer fabric of the vest should extend inside to the lining. Higher-priced suits generally have more hand tailoring, which means that the suit keeps its shape longer and requires less frequent pressing. But hand stitching (not to be confused with hand tailoring) can't be expected to last as long as machine stitching, all other things being equal.

Fit. Permit no garment to be extensively "adjusted" for you. Numerous changes destroy the original set and nullify all attempts at proper design. No coat should be accepted that requires more alteration than a change in the sleeve-length, a slight raising or lowering of the collar, a little padding or

reduction of the shoulders, and a slight shortening of the flare at the bottom.

Lining. No matter what kind of fiber is used, a loosely woven lining will not give good service. Acetate rayon is superior to viscose rayon of the same weight and count.

MEN'S SUMMER SUITS

The following summary is based on examinations and tests of a number of fabrics of many different types.

Tropical Worsteds. The best all-round fabric for Summer suits is still a good grade of tropical worsted, weighing about nine ounces per linear yard 58 inches wide, and made of fairly tightly twisted yarns. Such fabric suiting is light in weight and porous in structure, has adequate strength, and does not become clammy since it can absorb considerable quantities of perspiration without feeling damp. It holds its press and is by nature wrinkle-resistant.

Worsted and Mohair Tropicals. Worsted and mohair tropicals are generally the same in construction as the all-worsted fabrics, but they are slightly harsher to the touch.

"Palm Beach" Fabrics. "Palm Beach" cloth and similar fabrics follow tropical worsteds and mohair tropicals. "Palm Beach" cloth is a lightweight cloth of cotton and mohair, harsh to the touch; it retains its crease fairly well.

Rayon Fabrics. Crush-resistant spun rayons and rayon blends include "Rivercool," "Rivercrest," "Salyna," "Congo Cloth," "Cool-Long," "Teca Spun" fabric (acetate rayon), &c. Many of these fabrics contain acetate rayon, and, while some are among the best in the category, special care must be observed in cleaning and pressing, for some solvents used in dry cleaning, as well as high temperatures, may damage fabrics containing this type of rayon.

Cotton and Linen Fabrics. Fabrics which are made entirely of cotton or linen require too much maintenance: pressing, if they are not treated for "crush resistance"; and cleaning, if they are to retain a satisfactory appearance. Seersucker, a lightweight crinkly weave cotton fabric, is cool, but its appearance and ability to hold its shape are very poor.

High dry cleaning prices and the present scarcity of certain dry cleaning solvents make Summer suits of washable materials comparatively better buys. Such materials should be treated

to make them crush- and moisture-resistant; otherwise they will always have a worn, soiled appearance. Some suits made of "Palm Beach" cloth, rayon, cotton and linen are washable, but it's wise to get a guarantee of washability before buying.

For further information and directions on the care of Summer suits, see the *Reports*, June 1940.

BATH TOWELS

To dry well, a bath towel must be soft and fluffy; the yarns should not have too much twist, and the weave should not be too tight. Yet the yarns should be twisted sufficiently to resist tearing and the weave tight enough to prevent the terry loops from pulling out easily. The proper balance in yarn strength and weave can be tested somewhat by holding the towel up to the light. A towel with improper proportion of terry loops to base weave will allow light to come through in uneven splotches. Scattered loops larger than the rest will catch and pull out. A tightly woven, evenly balanced towel will filter the light in even pin points.

Towels should have sufficient selvage on both sides. Cheaper towels, woven twice the width of the finished product, cut down the center and hemmed, have not the strength of a good selvage.

Towels selling below 35¢ usually have too small terry loops, insufficient ground warps for proper anchorage of the loops, or one hemmed edge. Above 65¢, towels have more loops, more firmly anchored. These towels are, however, in the luxury class. Some colored towels have lower absorption than white towels of the same construction because some of the absorbing capacity has been taken up by the dye. When buying colored towels, make sure that they will stand up under the washing with hot water and soap that a bath towel requires.

Three sets of yarn are used in weaving turkish toweling, two warp (lengthwise) and one filling (crosswise). One of the warp yarns (the "ground") together with the filling makes up the base weave of the towel; the other warp yarn (the "pile") forms the terry loops. A two-ply ground warp is advisable because it holds the terry loops more firmly.

Tensile strength, which determines holding power of the weave, and absorbing capacity were given special weight in CU's tests. Number of loops per square inch, tensile strength

138 BATH TOWELS

of the filling, thread count, weight and shrinkage in washing were also considered. All towels tested were white, with or without colored borders, all of which were washable. Two samples of each brand were tested. All were single loop towels except where otherwise noted. None shrank excessively.

From the *Reports*, January 1942.

BEST BUY

The following towel of the "Acceptable" list was judged to offer the best value for the money. For full details see listing under "Acceptable."

Gimbel's Gramercy. 39¢.

ACCEPTABLE

(In order of quality without regard to price)

Hale Bros. Iron Thread (Hale Bros., San Francisco). 49¢.

22x44½ in.

AMC Regent (Associated Merchandising Corp., NYC).¹ 59¢.
22½x43 in.

Gimbel's Gramercy (Gimbel Bros., NYC). 39¢. 21¾x43¼
in.

Macy's Mayflower (R. H. Macy & Co., NYC). 44¢. 21½x45
in.

AMC Ambassador (Associated Merchandising Corp.).¹ 49¢,
22x45½ in.; 65¢, 25x51¼ in.

Fieldcrest (Marshall Field & Co., Chicago). Available from
Cooperative Distributors, 114 East 16th Street, NYC, for 49¢
plus postage, if ordered by mail. 22¼x43¼ in.

Moor (Mooresville Cotton Mills, Mooresville, N. C.). 38¢.
22½x44¼ in.

Gimbel's Toughie (made by Wellington Sears Co., NYC;
makers of Martex towels). 79¢. 24½x46¾ in.

Cannon Gym Towel (Cannon Mills, Inc., NYC). 60¢.
23x46¼ in. Ribbed towel made by three sets of double
loops with a 1-ply binder after each set on the face, and the
same on the back.

Ward's Pride Cat. No.—9321 (Montgomery Ward). 47¢ plus
postage. 21¾x42½ in.

Cannon (Cannon Mills, Inc., NYC). 49¢. 22x44 in.

Dundee (Georgia Kincaid, Griffin, Ga.). 50¢. 22¼x44¾ in.

Sears' Morning Glow Cat. No.—8060M (Sears-Roebuck).
47¢ plus postage. 22¼x46¼ in.

¹ For a list of AMC stores, see page 12.

DISH TOWELS

A dish towel should be strong and absorbent; it should be made of long staple, good quality yarn, lightly twisted and firmly woven. If too tightly woven, it will not be sufficiently absorbent. It should not shed lint excessively. Colored dish towels should be color fast to hard laundering. These qualities vary in different brands and types.

Dish towels are made of linen, cotton, mixtures of both or mixtures of linen, cotton and rayon. Linen towels are strong, lint-free and highly absorbent, but expensive. Cotton is also strong, and satisfactorily absorbent, but it sheds somewhat more lint than linen. Plain cotton or cotton and linen towels are much cheaper than pure linen, and do an effective job. They are better buys. Part linen towels should have at least 25% linen content in order to benefit from the presence of the linen. Rayon combination towels are unsatisfactory, because rayon becomes weak when wet.

A good glass towel dries glassware free from lint. It should be closely woven with extra tightly twisted yarns. Since glass towels are not highly absorbent, glassware should be dried first with an ordinary towel, then polished with a glass towel.

Most dish towels contain some finishing or sizing which should be washed out before use. More than 2% to 3% sizing is undesirable. To test for this, rub a towel against itself; if powder falls off, there's probably too much sizing present. Some types of finishing that won't show up in this test will come out in the wash. When buying, inquire about the finish and insist on returning the towel if it looks sleazy after washing.

Dish towels should have selvages along both sides. Ends should be hemmed firmly with tight stitches and backstitched to prevent raveling; there should be no free fabric ends.

Knitted towels are highly absorbent, leave little lint and are very strong.

Dish towels should be washed every day with hot water and plenty of suds, and if possible, hung in the sun to dry. Do not buy towels if their washing instructions caution against use of hot water, strong soap or a hot iron. Either fabric or color will be too delicate to be durable.

CU tested four to six samples of each brand for tensile strength, resistance to abrasion, weight, thread count, absor-

ing capacity, shrinkage, amount of sizing, and linen content where claimed. In rating, special weight was placed on resistance to abrasion and absorbing capacity. One knitted towel was tested for purposes of comparison.

From the *Reports*, January 1942.

BEST BUYS

The following dish towels of the "Acceptable" list were judged to offer the best value for the money. For full details see listings under "Acceptable."

Boott Drywell. 6 for 60¢.

Fieldcrest Kwik Wipe. 6 for 89¢.

ACCEPTABLE

(In order of quality without regard to price)

Martex Standard (Wellington-Sears, NYC). 6 for 92¢. 17x34 in.

Fieldcrest Kwik Wipe (Marshall Field & Co., Chicago). 6 for 89¢. Available from Cooperative Distributors, 6 for 84¢ plus postage, 16x32 in.

Startex (Startex Mills, Inc., Tucapau, S. C.). 6 for 90¢. 17x32 in.

Fieldcrest Easi-Dri (Marshall Field). 6 for 89¢. 16x32 in.

Cannon Checks (Cannon Mills, Inc., NYC). 6 for \$1. 18x32 in.

Martex Dry-Me-Dry (Wellington-Sears). 6 for \$1.50. 17½ x34 in.

Startex (Startex Mills, Inc.). 6 for \$1.79. 17½x33 in.

Cannon (Cannon Mills, Inc.). 6 for 90¢. 17x32 in.

Boott Drywell (Boott Mills, Lowell, Mass.). 6 for 60¢. 16½ x31 in. Best of the 10¢ towels tested.

Startex Super-Dri (Startex Mills, Inc.). 6 for 99¢. 18x34½ in. Labeled 75% cotton, 25% linen.

Cannon (Cannon Mills, Inc.). 6 for 60¢. 16½x31 in.

Patex (Patex Fibre Corp., Midland Park, N. J.). 6 for \$1. 19x32½ in.

Cannon Dryfast (Cannon Mills, Inc.). Sold by Montgomery Ward as Cat. No.—9357, 6 for 49¢ plus postage. 16x31 in. Selvage on one side only.

Cannon Dryfast (Cannon Mills, Inc.). 6 for 60¢. 16x28 in. Selvage on one side only. Different in construction from *Cannon Dryfast* above.

ACCEPTABLE—CONT'D

Startex Rainbow Stripe (Startex Mills, Inc.). 6 for 60¢. 16x30 in. Had excess of finishing material.

The following cotton knit towel is rated separately because it differed from the woven towels in construction.

ACCEPTABLE

Spongy (Wright Mills, Philadelphia). 6 for \$1.20. Available at F. W. Woolworth Stores. 16x36 in. Satisfactory strength, highly absorbent; no more lint than woven cotton towels.

FACE TOWELS

Special weaves—huck, crash, waffle, damask or cambric—are used to make towels absorbent at no sacrifice of strength.

Huck, the most common weave made of linen or cotton, appears as a dotted, geometric design with a slightly rough surface. Crash, often used for guest towels, is absorbent because of unevenness of the weave. It may be linen, cotton, rayon or a combination of any two. Waffle weave towels are generally made of cotton; they are good utilitarian towels. Damask and cambric weaves are attractive but less effective.

Linen towels look best and wear best but are quite expensive. Linen and cotton mixtures are considerably less expensive and are satisfactory in appearance and drying ability. Rayon becomes weak when wet.

For maximum strength, face towels should have selvages along both sides. End hems should be firmly sewn with close even stitches and back-stitched to prevent raveling.

Since cotton huck towels are most popular and economical, tests were confined to them except for one huck with a damask design and one waffle weave towel chosen for comparison. Four to six samples of each brand were tested for resistance to abrasion, absorption, tensile strength, shrinkage, count and weight.

From the *Reports*, January 1942.

BEST BUYS

The following towels of the "Acceptable" list were judged to offer the best value for the money, in order of quality. For full details see listings under "Acceptable."

Boott Wipe Dry. 10¢.

Cannon Waffle Weave. 10¢.

(Continued next page)

ACCEPTABLE*(In order of quality without regard to price)*

Boott (Boott Mills, Lowell, Mass.). 29¢; 6 for \$1.50. 18x33 in. Heavy huck towel slightly larger and of slightly better construction than *Boott Wipe Dry* listed below.

Boott Wipe Dry (Boott Mills). 10¢; 6 for 59¢. Labeled 16½x34½ in. but measured 17x31½ in.; samples purchased at Kress stores, not labeled for size, measured 15½x30½ in. Quality slightly lower than that of *Boott* towel listed directly above.

Cannon Waffle Weave (Cannon Mills, Inc., NYC). 10¢. 16½x29½ in. High absorption but comparatively low resistance to abrasion.

Fieldcrest (Marshall Field & Co., Chicago). Available from Cooperative Distributors, 4 for 88¢ plus postage. 18x34 in.

Cannon (Cannon Mills, Inc.; purchased in W. T. Grant store). 10¢. 16½x22 in.

Fieldcrest (Marshall Field & Co.). 19¢. Available from Cooperative Distributors, 4 for 66¢ plus postage, if ordered by mail. 16x32 in. Smaller than *Fieldcrest* listed above but similar in quality.

Sears' Cat. No.—8606 (Sears-Roebuck). 12¢ plus postage. 18x35 in. Had high absorption.

Cannon (Cannon Mills, Inc.). 10¢. 14x20½ in. Smaller than *Cannon* towel listed above with less absorption and higher shrinkage.

UMBRELLAS

The quality of umbrellas is suffering from war needs. Silk fabric has given way to rayon or cotton; the latter is the better buy for a durable umbrella, since rayon becomes weak when wet. Some of the coated fabrics, such as *Koroseal*, are likewise unavailable because of war needs. Plastics are taking the place of wood and metal, for handles and canes they should prove satisfactory, but ribs require springy metal for sufficient elasticity and strength.

Here is what to look for when buying an umbrella:

1. It should open easily and snap into open position without too much pressure.
2. The joint where the stretcher (where the two meta

pieces are held together) is attached to the rib should be smooth. If it is raised, a small piece of fabric should be inserted between the joint and the umbrella fabric.

3. The fabric should be closely woven and amply cut. Hold it to the light and look for sleazy weave or pinholes; if skimped in size, it will be under excessive tension every time the umbrella is opened.

4. Coated fabrics like transparent oil silk or Koro-seal (if you can get them) are satisfactory only if the basic weave of the material is strong. Pliofilm or other synthetic and natural films do not give long wear.

From the *Reports*, November 1940.

MEN'S Undershirts

Men's undershirts are being tested in CU's laboratories as this book goes to press. The results, including ratings of brands, will appear in the *Reports* early in 1943.

Knitted undershirts are made in both ribbed and plain knits. In general, men who like a snugly fitting undershirt prefer ribbed knits, while those who like looser undergarments prefer plain knits.

When buying knitted undershirts, make sure that the stitches are firmly sewn and stretch with the material.

From the *Reports*, August 1941. (Labor notes included.)

CHILDREN'S UNDERWEAR AND SLEEPING GARMENTS

Children's underwear and sleeping garments must be loose enough to permit freedom of movement and yet snug enough to keep out drafts at the shoulders and legs. Garments with raglan sleeves allow greater freedom of movement.

Children's garments are usually sized according to age, though the U. S. Bureau of Home Economics (as well as every mother) has found this to be an unreliable guide to correct size. The table which follows gives a fairly accurate method of determining required size where the manufacturer has followed government recommendations for sizing. If you have no way of telling whether he has done this (in most cases you won't have) you can measure each undergarment before you buy it.

(Continued on page 144)

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If measurements come midway between two sizes, choose the larger size. Make sure the garment isn't skimped in any of the measurements.

Fabrics and construction are also important. If a new garment does not spring back into shape after stretching, it is not likely to do so after many washings.

Wool content of 10% should be the maximum for children's garments; those of all cotton are generally the better choice since wool may be irritating. Avoid rayon decorations, which complicate the problem of washing. In general, the heavier the cotton, the warmer the garment will be. Fleeced finishes contribute to softness and comfort. Ribbed or fancy knits are likely to be more elastic than plain knits.

For the child who is learning to dress himself, buttons on garments should be few in number, large and smooth, and easily reached. If they are not, the child will either call for help or leave the job unfinished. The self-help seat, with an elastic at the top, is an important aid to self reliance. Suits of the pull-on type, with elastic at the neck and no front opening, are excellent for most young children.

From the *Reports*, March 1940.

KNIT UNDERWEAR (RIBBED)

| Age (size) | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|--------------------|-------|-------|--------|--------|---------|---------|--------|--------|
| Trunk ¹ | 37-40 | 40-43 | 43-46 | 46-49 | 49-52 | 52-55 | 55-59 | 59-62 |
| Width ² | 9½-10 | 9½-10 | 10-10½ | 10-10½ | 10½-11½ | 11½-12½ | 12½-13 | 13-13½ |

KNIT SLEEPING GARMENTS (RIBBED AND FLAT)

| Age (size) | 2 | 4 | 6 | 8 | 10 |
|--------------------|-----|-------|-------|--------|--------|
| Trunk ¹ | -38 | 38-40 | 40-42 | 42-44 | 44-45 |
| Width ³ | -9 | 9-9½ | 9½-10 | 10-10½ | 10½-11 |

¹Trunk measurement is taken by passing a tape measure from the top of the shoulder close to the neck down to and around the crotch and back to the shoulder.

²Width measurement is taken by passing the tape measure around the chest 2 or 3 inches below the armpits and dividing by 2.

Medical, Drug Supplies

An alarming shortage of medical personnel is evident in many parts of the country. Government action on a large scale is needed to alleviate the situation.

Among the important drugs, quinine is already short and aspirin is becoming so. Rubbing alcohol and other compounds containing ethyl alcohol may not be sold except on prescription. Substitutes are being used to replace metal containers.

ALKALIZERS

Habitual dosing with "alkalizers" can cause alkalosis, a serious and sometimes dangerous condition. This is particularly likely to occur in elderly persons or those with kidney disease.

However, there is no danger in the use of an alkalizer for an occasional attack of "heart burn" or "gas" due to alcohol, sensitivity to a particular food, hurried eating or emotional distress. Ordinary baking soda (bicarbonate of soda) will work as well as any of the proprietary remedies such as *Bisodol*. A half teaspoonful of soda in hot water has a sedative effect on the stomach. Ten to fifteen drops of essence of peppermint may be added for flavor. Baking soda in seltzer water is cheaper and safer than effervescent drinks such as *Bromo-Seltzer*.

The *Reports* for October and November 1938 contained detailed articles on alkalizers and their uses and effects.

ANTISEPTICS

The ideal antiseptic is one which will kill bacteria or inhibit their growth and activity *without injuring the human tissues* to which it is applied. Unfortunately, every known antiseptic can harm tissue cells and blood. The tissues themselves destroy germs; but when an antiseptic is applied it may interfere with the natural protective action of the tissues.

(Continued next page)

Irrigation or douching of the eyes, nose, throat or genital tract with commercial antiseptic solutions reduces the resistance of these areas to infection. The secretions and the natural defense capacities of these tissues are adequate for combatting germs under normal conditions. In abnormal cases, medical care and not an antiseptic is required.

Pouring an antiseptic into a wound or cut is no guarantee of antisepsis; it is possible that it will be harmful.

Doctors usually treat open wounds by irrigating with sterile normal¹ salt solution. Rarely is an antiseptic poured into the depth of a wound itself. The same mechanical cleansing of a wound can be achieved in first aid by allowing a little blood to run from the wound or by immersing the cut part in a stream of running cold water.

Unlike the wound itself, the intact skin on the borders of the wound will not be harmed by an antiseptic, and since there are always germs on the skin, it is advisable to apply an antiseptic at the margin and around the wound, but not directly in the wound. It is difficult to avoid introducing antiseptic directly into small cuts, but the less the better.

The best all around antiseptic for home or first aid use is mild (2%) tincture of iodine. It will destroy the disease-producing germs on the skin bordering a wound, or stop their growth, and will not cause the burn that ordinary tincture of iodine (7%) produces. If not poured into a wound (*and it never should be*), mild tincture of iodine will not smart and therefore can be used for children.

Before iodine is applied, grease or dirt on the skin adjacent to the wound should be washed off with benzine. If this is not available, soap and water may be used. So-called "germicidal" soaps are not appreciably more germ-destroying than ordinary toilet soap.

Other relatively safe and effective antiseptics on the market are the mercury antiseptics: the Merphenyl compounds (*Merphenyl Borate and Nitrate*), *Metaphen*, *Mercresin* and *Merthiolate* either in tincture or watery solution.

Mercurochrome, another mercury preparation, is not a good antiseptic. If you have *Mercurochrome* in your first aid kit or medicine chest, replace it with mild tincture of iodine or one of the other mercury solutions. Don't depend on *Hexylresorcinol*, *Absorbine, Jr.*, *Pepsodent Antiseptic* or *Listerine* either

¹ Same concentration of salt as in the blood.

—all have comparatively negligible antiseptic properties.

The chlorine antiseptics, *Zonite*, *Hychlorite*, &c. are not suitable for first aid. Because of their caustic properties, they should be used only under direction of a physician. Likewise, antiseptic dyes—*acriflavine*, *gentian violet*, *brilliant green*, *scarlet red*, *carbol fuchsin* and *bismuth violet*—are useful and safe only in the hands of a physician.

Hydrogen peroxide is a weak antiseptic used chiefly to clear away blood stains or clots or foreign materials, and is of little value in first aid.

Unguentine is representative of the so-called antiseptic salves. While they may do no harm on small superficial burns, they have no place in first aid treatment of cuts and wounds, because they are not adequate antiseptics and, by virtue of their greasiness, are likely to help introduce germs into the wound.

The so-called colloidal silver antiseptics—*Argyrol*, *Protargol*, *Neo Silvol*, *Collargol* and other silver salts—are frequently used in the treatment of sore throats, tonsillitis and the common cold. Medical opinion tends to believe that they will not relieve or cure any of these conditions, but used inexpertly, they can aggravate the infection. They can also lead to a condition known as "argyria"—a permanent bluish discoloration of the skin and mucous membranes.

Antiseptics have no value when applied to acute infections of the skin and subcutaneous tissues, such as pimples, boils and abscesses. Painting a pimple with tincture of iodine will not bring it to a head or "sterilize" the pus. Nor are wet applications of *Absorbine*, *Jr.*, *Hexylresorcinol* or *Listerine* of any value. Wet applications of *Lysol*, on the other hand, can be definitely injurious; burns of the skin have occurred from such applications. Salves such as *Ichthyl* are useless for treatment of pimples and boils.

The best way to treat a pimple or a boil at home is by application of hot wet compresses. Boric acid, epsom salt or bicarbonate of soda may be added to the water in suitable proportions (to one glass of hot tap water add one teaspoonful of boric acid, or one tablespoonful of epsom salts or soda) if desired, but heat and moisture are the important things. Soft, clean, closely meshed cotton or linen material (not gauze or absorbent cotton), folded to make several layers, is best for hot wet compresses. A heat lamp or hot water bottle may be used to keep the dressings hot.

(Continued next page)

Antiseptic solutions are of value in the treatment of mild burns, sunburn and oozing, itching infections of the skin such as poison ivy or "weeping" eczema. The best antiseptics for these disorders are not any of the commercial proprietary remedies but, as in the case of boils, ordinary bland household antiseptics. Cold, wet compresses dipped in boric acid solution (one teaspoonful to a glass of tap water which has been boiled and then cooled) or Burow's solution (one tablespoonful to a glass) will do much to relieve burning, soreness and itching.

The compresses, made of the same materials used for hot dressings, should be kept on, cold and soaking wet, for several hours if possible. Infections or burns near the eyes should be treated only with boric acid solutions.

CU has long pointed out that the claims of highly advertised antiseptics or mouthwashes are often in inverse proportion to their antiseptic properties, that antiseptic mouthwashes are unnecessary for normal hygiene of the mouth (see page 169).

Recent investigations of the Federal Food and Drug Administration not only confirm this advice but add a new reason for avoiding mouthwashes; namely, that they may do more harm than good and that, far from discouraging bacterial growth, they may actually favor growth by injuring the normal tissue defenses.

The FDA tested 87 brands of commercial mouthwashes for toxicity to tissue and for germicidal action on the *Staphylococcus aureus* organism (common germ in wound infections). All were found to be harmful to tissue, and only nine were found to be germicidal under the test conditions.

The following were among the brands tested which were not germicidal at a test dilution of 1 part of antiseptic to 2½ parts of water, but were harmful to tissue at an even weaker strength (1 to 5 or 1 to 10):

| | |
|------------------------|----------------------|
| <i>Aseptisol</i> | <i>Mifflin</i> |
| <i>Borodene</i> | <i>Pepsodent</i> |
| <i>Calox</i> | <i>Purepac</i> |
| <i>Forhan's</i> | <i>Sanalin</i> |
| <i>Hospital</i> | <i>Squibb</i> |
| <i>Iodosептический</i> | <i>S. T. 37</i> |
| <i>La Crosse</i> | <i>United Whelan</i> |
| <i>Listerine</i> | <i>Vicks'</i> |
| <i>Mi-31</i> | <i>White Cross</i> |

The following brands, although germicidal in one dilution or another (1 to 2½ through 1 to 10) were in each case harmful to tissue in an even weaker solution:

| | |
|----------------------|--------------------|
| <i>Afko</i> | <i>Hychlorite</i> |
| <i>Astring-O-Sol</i> | <i>Jermene</i> |
| <i>Extol</i> | <i>Mark 4</i> |
| <i>Fo-Fen-X</i> | <i>Pentacresol</i> |
| | <i>Zonite</i> |

ASPIRIN

Aspirin should be purchased by price, not by brand. Though brands sell at widely different prices, all products labeled "Aspirin Tablets" must meet the standards set up in the National Formulary. Some are called N.F. (National Formulary) Aspirin Tablets; some say just Aspirin Tablets and some say Aspirin, U.S.P.

Makers of *Bayer's* aspirin have advertised that their brand disintegrates more quickly than other brands, and have claimed that this makes the aspirin more effective. Aside from the fact that tests have shown that some other brands disintegrate as fast or faster than *Bayer's* speed of disintegration has nothing to do with the effectiveness of aspirin. The drug has to pass into the intestines before it can be absorbed in any appreciable quantity, and even the toughest of aspirins is dissolved in the time it takes to pass through the stomach.

Aspirin consists of acetyl-salicylic acid, a pain killer. Though probably the safest of commercial pain-relief remedies, aspirin is not entirely harmless. Many individuals are sensitive to it and can develop unpleasant symptoms—nausea, skin eruptions, swelling of lips and face, and palpitations—from taking even small doses. If such symptoms do occur, the user should stop taking it at once. And persons suffering from asthma, hay fever, hives or eczema should take aspirin only under a physician's supervision.

Aspirin has no curative effect whatever on colds or other organic conditions, but may provide some temporary relief from pains, soreness, &c., accompanying such conditions.

Aspirin may become somewhat less plentiful, because it is needed in large quantities by the government, and because several of the materials used for its preparations are required for war production. Salicylic acid is used for chrome and

khaki dyes and for vulcanizing natural rubber. Phenol, from which it is made, is important for production of explosives and plastics.

From the *Reports*, January 1941.

BURNS

Small, superficial burns can be treated adequately at home by first aid measures. Extensive burns (where there is considerable blistering, charring or severe pain), whether superficial or deep, should be considered medical emergencies requiring immediate treatment by a physician or hospital staff.

Severe burns—First aid for severe or extensive burns primarily involves prevention of shock, or at least delaying it until the patient can have treatment in a hospital. Since severe pain increases the tendency to shock, the first thing to do is to relieve pain. For this there is nothing better than morphine, but it can be administered only by trained medical personnel.

Until medical aid arrives, shock may be combatted by giving plenty of warm liquids such as tea or coffee well sweetened, or hot milk, soups or water to which table salt has been added (one level teaspoonful per pint). Applying external heat—hot water bottles, electric pads—or wrapping the patient in a blanket is also very important.

In severe or extensive burns it is far more important to relieve pain and combat shock than to treat the burn itself by local applications. The latter can be done far more effectively in a hospital. Until then, the burned areas should simply be covered with a clean sheet or cloth. In burns of the body, it is considered inadvisable to attempt to remove all clothes. However, if medical aid or hospital care cannot be obtained within an hour, the patient should be placed in a bath of warm water (kept at a temperature of 95 to 100 degrees F.) to which table salt has been added—three to four pounds to a well-filled tub, or about an ounce per gallon. Close supervision during the bath is necessary, of course.

Superficial burns—The main job of first aid remedies for superficial burns is to ease pain. This is most conveniently accomplished by keeping the burned part in cool water for a few minutes or applying cold wet compresses.

Compresses should be made of soft muslin or linen cloth, folded to several thicknesses. Gauze is not so satisfactory since

it has a tendency to stick to a wound that becomes blistered. Use surgical cotton only if nothing else is available.

The compresses should be dipped in cold or tepid tap water containing either bicarbonate of soda or boric acid in the proportion of one tablespoonful to a tumblerful of water. Burow's Solution, diluted one tablespoonful to about a tumblerful of tap water, also makes a soothing wet compress. Any of these solutions gives the compress slight antiseptic properties.

Table salt in the proportion of one teaspoonful to one pint (two tumblers) of water also makes an excellent medium for wet compresses.

Compresses are preferable to the commonly used salves, ointments and greases. The latter compounds will probably do no harm to small superficial burns, but smearing greasy salves on larger burns, whether superficial or deep, can cause a great deal of trouble. For one thing, it interferes greatly with the subsequent use and effectiveness of valuable drugs like tannic acid, certain dyes and the sulfonamide compounds. Before these drugs can be applied, the grease must be removed, and this is usually painful and troublesome. Wet dressings, on the other hand, do not interfere with subsequent expert medical care.

Moreover, it has been well established that oils and greasy ointments are more often responsible for infection of a burn than any other materials.

Besides the household oils and greases (butter, lard, linseed oil, &c.), which have been stock remedies from time immemorial, many commercial ointments for the treatment of burns are on the market.

Much-advertised *Unguentine* is an oily preparation containing a mercurial antiseptic, carbolic acid, zinc oxide and some aromatic drugs. It unquestionably will give some relief to a small superficial burn, but it should never be used for larger burns or for burns in which there is blistering.

Butesin Picrate Ointment contains an anesthetic agent, "butesin picrate." This ointment is useful for small superficial burns but should not be used for large areas because of possible danger of toxic effects. Some instances of allergic reactions from its use have also been reported.

Patch's Gadoment, another proprietary burn remedy, has as its chief ingredient cod liver oil. The value of cod liver oil preparations in the treatment of burns has not been conclu-

sively proved. Many physicians do find them useful for the treatment of certain burns, but for first aid treatment they have the same disadvantages as any other oily preparation. *White's Vitamin A & D Ointment* is still another variety of the same class of ointment.

Tannic acid sprays, compresses and jellies may be useful in the hands of a physician, but they can cause trouble when improperly applied. Moreover, there is a growing opinion that tannic acid preparations should not be used for first aid treatment of burns on the face, hands or genitals, because of the tendency of the drug to cause permanent contracture or puckering. Tannic acid jellies such as *Amertan and Metanic Jelly* are unnecessary for superficial burns and potentially harmful when used by the lay person for deep or extensive burns.

For a complete discussion of burns, see the *Reports*, March 1942.

COLDS

The common cold is generally considered to be caused by an "ultramicroscopic virus"; no effective means of prevention or cure is yet available. All "cold remedies" must be appraised in the light of this fact.

"Cold vaccines" are suspensions of dead bacteria. By injecting them, physicians seem to have reduced the severity and duration of colds effectively in a small percentage of cases. Cold vaccines taken by mouth, such as *Entoral*, have not proven to be of any value.

A cold is a potentially serious ailment, capable of causing many complications. It should therefore be treated by rest in bed for a day or so. If rest in bed is necessary for the average person, it is imperative for all children, for all adults suffering from a chronic ailment such as diabetes, rheumatism &c., and for every one who has fever accompanying the cold.

Advertised cold remedies can at best only relieve local discomfort. Most remedies are worthless, some are injurious and a few are actually dangerous.

Pills—Aspirin is of value only in diminishing the aches and pains that sometimes accompany colds. Although aspirin causes reactions in some people (see "Aspirin" p. 149), it is safer to use than other analgesics (pain relievers). *Groves Laxative Bromo Quinine* contains acetanilid—a drug which can produce serious reactions if used indiscriminately (see p. 181).

The most helpful drugs for relief of congestion and discharge from the nose are codeine or codeine and papaverine. But these can be prescribed only by a physician.

Nose Drops—There is serious hazard in habitual use of nose drops. Those containing mineral oil—and many of the most widely sold brands do—have been found responsible for many cases of serious disability or death, due to "lipid pneumonia." When oily drops are sprayed or dropped into the nose, they pass through the glottis and are breathed or gravitate into the lung spaces, where they accumulate and act as irritants. Lipid pneumonia can occur in normal adults as well as in enfeebled children and infants. Many instances of "chronic bronchitis" or "bronchiectasis" are really cases of lipid pneumonia resulting from irritation or infection of the lungs by mineral oil. (See the *Reports*, January 1942.)

No nose-drop preparations, whether of mineral or vegetable oil, will prevent a cold or shorten its duration. In fact, the indiscriminate use of any nasal preparation—oil, watery solution or jelly—favors the spread of infection to the sinuses, ears and bronchi (see the *Reports*, February 1940).

If you must use nose drops, neo-synephrin $\frac{1}{4}\%$ in watery solution, or ephedrine 1% in watery solution are among the safer preparations for relief of nasal congestion. Two or three drops every 3 or 4 hours are sufficient. The effect is brief and may be followed by increased congestion. Avoid jellies.

Silver preparations such as *Argyrol* or *Neosilvol* do not relieve colds. They are frequently destructive to tissue and may cause "argyria" (a permanent blue discoloration).

Inhalants—Benzedrine is the most recently developed of the inhalant drugs. While some people may find it effective in shrinking the mucous membrane of the nose, it can cause sleeplessness and other toxic symptoms unless the directions on the tube are scrupulously followed.

Ointments—Neither *Vicks' Vaporub* nor any other ointment applied to the skin can prevent or cure colds. Such ointments cannot "penetrate skin." They may diminish chest soreness.

Alkalizers—Alkalizers have no influence whatever on the course of a cold.

Vitamins—For persons on adequate diets, vitamin preparations will not help in prevention or treatment of colds.

Laxatives—Laxatives have no value either at the onset or during a cold.

CONSTIPATION

A bowel movement every day is not essential to good health. Many people in perfect health have an evacuation no oftener than once every two or three days without the slightest ill effects.

If true constipation actually exists and evacuation is difficult, incomplete or painful, a rational treatment can be prescribed only after careful examination has determined whether the condition is organic or functional. Constipation caused by ulcers, inflammation, tumors or other organic diseases can be relieved only by curing the underlying disorder. Medical investigation is particularly important for those adults who, after having had regular and satisfactory evacuations, begin to experience a persistent change in the character and frequency of bowel movement. Most cases of habitual constipation, however, are due to functional factors such as improper diet, habits of living or emotional tension.

Laxatives for the relief of chronic constipation should be used only as a crutch until good habits replace bad ones. A harmless laxative effective for some people consists of salt water prepared by dissolving $\frac{1}{2}$ teaspoonful of table salt to each glass of water. Two glasses may be taken every morning before breakfast.

When the stools are hard and small and straining is necessary, a "lubricating" mineral oil may be helpful. Not more than one to two tablespoonfuls need be taken, and only at night or every second or third night before retiring. If mineral oil is taken in this way, there will be a minimum of interference with digestion and absorption of food and a minimum of digestive disorders and rectal trouble.

Agar-agar, psyllium seed and its derivatives, and the tragacanth gums fall into the class of bulk-producing laxatives. Of these, the tragacanth products are most effective, and psyllium seed preparations the most harmful. Although the gummy laxatives are an advance over the old familiar cathartics, like other laxatives they have many drawbacks. Indigestion, rectal trouble and in rare instances, obstruction of the digestive tract may occur from their use. Elderly people and persons with disease anywhere along the digestive tract should avoid all bulk producers.

Cascara sagrada may occasionally be used to advantage, especially for elderly persons. After a few weeks the dose

should be reduced to the smallest amount necessary for a satisfactory evacuation. Then gradually lengthen the interval between doses until use is no longer necessary.

Enemas, like laxatives, should be used only as transitory aids in the re-establishment of good function. The least irritating solution is warm salt water—one teaspoonful of salt to a pint of water.

Children should rarely be given laxatives or cathartics. Chronic constipation in children is usually a personality problem and may require the services of a competent physician or child psychiatrist. When there is abdominal pain in child or adult, laxatives and enemas must be avoided, since the pain may be a symptom of acute appendicitis. Taking a laxative may cause rupture of the appendix and possibly death.

The Buying Guide is not intended for the bookshelf. Carry it with you when you go shopping. It is printed in this compact, pocket size so that it will be convenient to put in your pocket or handbag. It is fully indexed so that you will find it easy to use. Make your Buying Guide work for you.

Habitual use of laxatives, "roughage foods" and excess mineral oil is frequently responsible for hemorrhoids. Temporary constipation in children requires no treatment. In adults occasional constipation will do no harm. If an evacuation is desired, however, the most rational procedure is to take an enema, since it is in the last foot or so of the bowel that stoppage generally occurs. If a mild laxative is desired, it may be chosen from the "Acceptable" list below.

Chronic or habitual constipation must be treated from the point of view of the patient's mode of life, his habits, occupation and his personality.

Diet, exercise, personal hygiene, drugs and bulk producers all can have a useful place in treatment. But because of the variety of factors influencing cause and treatment, each case must be considered individually.

There is no doubt that drugs are necessary in the early treatment of many cases—at least until diet and proper habits

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have established a satisfactory rhythm of movement. And when social and psychological tensions cannot be successfully removed, it may be necessary to use a drug indefinitely. For elderly persons drugs are particularly useful because it is too difficult to establish new habits or modes of living. But in all cases drugs are two-edged weapons capable of doing harm as well as good.

ACCEPTABLE

(Doses are for adults)

For temporary constipation:

Milk of Magnesia, U.S.P. 1 to 2 tablespoonfuls.

Aromatic Fluid Extract of Cascara Sagrada, U.S.P. 1 to 2 teaspoonfuls.

Seidlitz Powders, U.S.P. 1 or 2 pairs of powders.

Effervescent Sodium Phosphate, U.S.P. 1 tablespoonful.

For habitual constipation:

Heavy Liquid Petrolatum (mineral oil), U.S.P. 1 to 2 tablespoonfuls.

Emulsion of Liquid Petrolatum, U.S.P. 2 to 3 tablespoonfuls.

Bulk Producers such as Tragacanth, Karaya Gum, Agar Agar.

NOT ACCEPTABLE

• BULK-PRODUCING TYPE

Edro-lax

Psyllium Seed

Hood-lax

Saraka

Inner-Clean¹

Serutan

Kiomin

Swiss-Kriss

• MINERAL OIL EMULSION TYPE

Haley's M-O

Petro-Syllium

• SALINE CATHARTIC TYPE

Adller-i-ka¹

Health Crystals

Pluto Water

Crazy Crystals

Jad Salts

Sal Hepatica

Eno Salts

Kruschen Salts

Sleepy Brand Salts

Fruitola

Ococy-Crystine

Texas Mineral Crystals

¹ These preparations are listed under more than one heading, because they contain several active ingredients.

NOT ACCEPTABLE—CONT'D**• CASCARA SAGRADA TYPE***Boals-Rolls¹**Nature's Remedy (NR)¹*
*Petrolagar with Cascara***• ALOE TYPE***Because of irritant effects:**Adler-i-ka¹**Grove's Laxative**Alophen**Bromo Quinine**Carter's Little Liver Pills**Lapactic Pills**Dr. Edwards Olive Tablets**Nature's Remedy (NR)¹***• SENNA TYPE***Because of irritant effects:**Boals-Rolls¹**Compound Licorice**Caldwell's Syrup Pepsin**Powder**Castoria**Herb Teas**Inner-Clean¹***• PHENOLPHTHALEIN TYPE**

Because it is an irritant and frequently responsible for marked stomach and intestinal disturbances and because it may be responsible, in sensitive people, for ulcers of the mouth and skin eruptions:

*Agarol**Feen-a-Mint**Petrolagar with Phenolphthalein**Asper Lax**Hints**Phenolax**Boals-Rolls¹**Hylax**Prunoids**Cascarets**Noral-Agar**Regis**Dilaxin**Nutlax**Veracolate**Ex-Lax**Phenobilin***DIET, VITAMINS AND MINERALS**

Authorities do not yet agree about the necessary requirements for the various vitamins and minerals at different age levels. However, the following list, adapted from tables of the Committee on Food and Nutrition of the National Research

¹ These preparations are listed under more than one heading, because they contain several active ingredients.

Council, gives an approximation of daily optimum requirements for the normal adult. During pregnancy and lactation requirements may be 50% to 100% higher.

Infants require a vitamin D supplement of 400 to 800 U.S.P. units. Vitamin D is also necessary for older children and adults, but it is stored in the body and Summer sunshine probably provides enough for ordinary requirements. Persons who for any reason do not get ordinary exposure to Summer sunshine will need vitamin D supplements up to the amount recommended for infants.

DAILY NEEDS OF THE NORMAL ADULT

Vitamin A—5000 International or U.S.P. Units.

Thiamine (vitamin B₁)—600 International Units or 1.8 milligrams.

Riboflavin (vitamin B₂)—2700 micrograms or 2.7 milligrams.

Niacin (nicotinic acid)—18 milligrams.

Ascorbic Acid (vitamin C)—1500 International Units or 75 milligrams.

Vitamin D—(see above).

Calcium—0.8 gram.

Iron—12 milligrams.

A detailed discussion of diet, vitamins and minerals appeared in the *Reports* for August and June 1941, March, July and October 1942.

• CALORIES, PROTEINS AND FATS

The number of calories a person needs each day depends largely upon the amount of energy used in work and play. Planning of wholesome meals does not require consideration of calory or energy needs, since the energy needs will be met automatically if there is sufficient food to satisfy appetite. The best energy foods are those that supply vitamins and minerals as well as calories. Refined food such as sugar and processed foods such as dry breakfast cereals are good sources of energy, but they do not possess the valuable vitamins and minerals contained in unrefined and unprocessed natural foods.

The normal adult requires about 2½ ounces of protein a day. Protein is important chiefly as a source of amino acids; in order to obtain a sufficient amount of all the essential amino acids, it is necessary to obtain protein from a wide variety of sources—milk products, vegetables and especially animal tissues (meat, fish or fowl).

Although fats are mainly a source of energy, they also have importance as sources of necessary fatty acids and as carriers of the fat soluble vitamins A, E and K. The milk fats are good sources of vitamin A. Vegetable fats, especially oleomargarine fortified with vitamin A, are good substitutes for butter.

• VITAMINS

Vitamin preparations have an important place in medical treatment of dietary deficiencies. Severe deficiency disorders such as pellagra and beri-beri are treated with large doses of the pure synthetic vitamins plus a well-balanced diet. Mild deficiency disorders due to poor food habits, infections or impaired function of the digestive tract are often relieved simply by the prescription of a wholesome, well-balanced diet containing milk, milk products, eggs, fruit, vegetables, meats, fish and whole-grain wheat products.

These foods contain all the known vitamins and minerals that a normal person needs. In addition, they probably contain vitamin factors that have not yet been discovered or isolated. In some mild deficiency disorders, however, a physician often supplements the diet with a vitamin preparation.

The choice of a suitable vitamin supplement is difficult not only for the consumer but also for the physician. There are hundreds of products on the market, with new ones appearing every month, and only those sold in interstate commerce are subject to check by the Federal Food & Drug Administration. Some general rules regarding vitamin products are offered to help the consumer make a wise choice.

Vitamins are roughly classified as fat soluble and water soluble. The former include vitamins A, D, E and K, the latter all the B vitamins and vitamin C. The most common vitamin deficiencies are those of the B vitamins (commonly known as the vitamin B complex). This complex consists of at least eight known factors and probably twice that number exist. So far only three—thiamine (B_1), riboflavin (B_2) and niacin—are known to be essential to human nutrition.

(Continued next page)

In overcoming a mild vitamin deficiency (serious deficiencies can be treated effectively only by a physician), it is important to know whether the deficiency is mainly of the fat soluble or the water soluble vitamins. If the fat soluble vitamins are lacking, a fish liver oil preparation (cod, halibut, percomorph, etc.) will overcome the deficiency. If the deficiency is of the B vitamins, a vitamin B complex preparation should be used (see below). If the deficiency is in vitamin C, fresh fruit juice or ascorbic acid will be helpful. These are, of course, measures which should be resorted to only if it is not possible to get all the necessary vitamins from a good diet.

If vitamin D alone is desired, the best buy is viosterol in oil. For vitamin A alone, a halibut liver oil product is a better buy than synthetic vitamin A or carotene products.

Cod liver oil with or without viosterol fortification used to be the best buy for vitamins A and D together. Because of the war, however, imports have sharply dwindled, and the price of cod liver oil has risen accordingly. Other fish liver oils such as halibut liver oil or "*Haliver*" oil, and "*Oleum Percomorphum*" with or without added vitamin D are also excellent sources of both vitamins A and D.

In buying a vitamin A and D product the consumer should note the number of U.S.P. or international units of vitamin A and vitamin D per gram of the product, and then compare the cost of different products in terms of their A and D potency.

Fish liver oils such as cod, halibut and percomorph are prepared for teaspoon and drop dosage. Infants can take the preparations without difficulty, but children and adults may find them too unpalatable. For them the convenient, though more expensive, forms are the concentrates of these oils in capsules or tablets.

The B vitamins are the ones most commonly lacking in the American diet. The only effective preventive and cure is to eat natural (unprocessed) foods—whole grain bread and cereals rather than unfortified white bread (see "Bread," p. 16) and processed breakfast foods; to eat more eggs, meat, milk and salads and to adopt methods of cooking which will conserve the B vitamin (as well as mineral and other vitamin) content of foods.

Drug companies would like to make up the deficiency by selling B vitamin and multiple vitamin preparations to the

public. The main objection to such preparations is that the vitamins present do not exist in that balanced combination which is found in natural foods and which is necessary for efficient utilization by the body.

Physicians now use the pure synthetic B vitamins for the treatment of severe specific deficiency disorders such as beriberi, pellagra, and ariboflavinosis. For mild and moderately severe cases of vitamin B deficiency, however, the best sources of the B vitamin are dried brewers' (not Fleischmann's) yeast powder or tablets, liver extract and wheat germ. All of these have an advantage over synthetic vitamin preparations in that they contain the B vitamins in the balanced state characteristic of natural foodstuffs. Furthermore, they contain other factors of the B complex which have not yet been isolated or synthesized, yet unknown but probably essential.

To be effective, yeast must unfortunately be taken in large amounts (20 to 30 tablets or 7 to 10 grams of powder daily), and some persons are not able to tolerate these amounts. A few persons cannot tolerate any amount of yeast.

Wheat germ in doses of 3 or 4 tablespoonfuls daily is a good substitute for brewers' yeast. Wheat germ and wheat germ cereals must be considered a food and not a B complex concentrate, since the germ contains about 30% protein and 12% fat.

Crude liver extract is a good source of the anti-pernicious anemia factor as well as the B vitamins. It must be given by injection into the muscle.

Many food stores specialize in so-called "health foods." These are supposed to be mineralized and vitaminized foods and to have special nutritional virtues. Many of them are simply extracts of sea-weed containing considerable quantities of iodine but not much of anything else.

Other "health foods" consist of wheat products, cereals and dried extracts of fruits and vegetables. Some are useful only as laxatives. None can replace a wholesome balanced diet.

• MINERALS IN THE DIET AND IN MEDICINES

Although the average American diet contains most of the essential minerals, many diets are too low in calcium. At all ages, from the premature infant to the elderly adult, a daily intake of calcium-rich food is necessary for good health.

Intake of a quart of milk daily will supply the calcium

required by small children and pregnant and nursing mothers; others need at least one pint of milk every day (see table p. 158 for standards set by National Research Council). While calcium is present in vegetables and fruits, these foods cannot supply a sufficient amount in a form readily utilized by the body. If whole milk cannot be tolerated for some reason, its calcium content can be furnished in the form of buttermilk and skim milk, or partly in creamed soups, creamed vegetables, custard, ice cream, *Junket* and puddings. About three or four ounces of cheese is equivalent in mineral content to one pint of milk.

Phosphorus is present in abundance in meat and grain products. Rarely is there a deficiency in this mineral. It exists in ideal combination with calcium only in milk or milk products. Medicinal preparations containing calcium and phosphorus in varying proportions cannot take the place of milk products at any age. Only for specific or serious disorders such as tetany and bone and skin disorders do physicians prescribe or use calcium or calcium-phosphorus preparations. Dental decay will not be prevented or cured by use of such mineral preparations—with or without added vitamin D.

While calcium is abundantly present in milk, there is no evidence that drinking milk in any amount will relieve "jitters" or is vital to "youthful spirits" (see Sheffield Co. ads). Nerve and emotional balance depend upon many other factors besides vitamins and minerals and even if they did not, milk alone would not be the answer.

A lack of sufficient iron in the body results in "iron deficiency" or "secondary anemia." The most common cause of an iron-deficiency anemia in adult life in either sex is hemorrhage—especially that which occurs repeatedly as in persons with ulcers and hemorrhoids and in women with excessive menstrual bleeding. Anemia may also occur during pregnancy because of the mother's increased need for iron.

In the treatment of iron-deficiency anemia, a well-balanced diet is a first essential. Because no one food contains an abundance of iron, variety should be emphasized. Grain products lose more than 50% of their iron content in the refining process. Therefore, foods should also be as close to their natural state as possible.

Listlessness, fatigue, pallor and lack of pep may be due to anemia, but they may rise also from a variety of other serious

diseases of the lungs, heart or other organs. Only a complete physical examination and a hemoglobin determination can show whether such symptoms are due to iron deficiency. When iron-deficiency anemia is recognized, doctors can cure it with adequate amounts of simple iron preparations such as ferrous sulphate, reduced iron or iron and ammonium citrate.

Many iron tonics that are advertised to the public are remarkable more for the amount of alcohol they contain than for their utilizable iron. The "tonic" effects of such preparations are chiefly due to the alcohol. Tonics containing copper, liver extract, manganese, vitamin B, the whole B complex or yeast are of no value in the treatment of ordinary secondary anemia.

EYES

Healthy eyes do not need to be washed regularly. If an eyewash is desired, a solution of boric acid (1 teaspoonful dissolved in a glass of boiling water and allowed to cool) is as satisfactory as any of the high priced eyewashes sold in drugstores. An eye cup may be used; but be sure to sterilize it in boiling water first.

You can treat a sty at home by applying to the eye a small cloth or thick gauze wrung out in hot boric acid solution (1 teaspoonful to 1 glass of boiled water). If the collection of pus does not spontaneously discharge itself, medical aid should be sought. Recurring sties require the attention of a physician.

FEET

Disorders of the feet are responsible for many disturbances in other parts of the body. Cases of so-called "arthritis" of the bones, hips and sacro-iliac joints, and many backaches or other back troubles have been found to be caused by foot disorders.

Bunions can be cured only by operation. Advertised remedies—pads and specially built shoes—may give temporary relief if properly fitted and applied, but improperly fitted ones are worthless and may damage the foot.

Hard Corns are produced by the pressure of badly fitted shoes. It is essential first to get a properly fitting shoe and thus ease the pressure. Then use the following treatment:

soak the feet in warm water for about 15 minutes; dry thoroughly, and apply to the surface of the corn 1 or 2 drops of 10% salicylic acid in collodion (proprietary corn removers are usually of similar composition); wear a corn plaster over this. If the corn does not lift out after a few days of such treatment, a podiatrist or physician should be consulted. Because of the risk of infection, corns should never be removed by cutting.

Soft Corns are frequently associated with "athlete's foot" infections and do not, as a rule, yield to simple home methods. The services of a physician are generally necessary.

Perspiring Feet. Perspiration may be controlled by liberally sprinkling the feet with a dusting powder such as pure talc, U.S.P., or with equal parts of talc and boric acid powder. If perspiration is extreme, the feet should be examined by a physician to determine whether an organic disorder is responsible for the sweating. If not, a 15% solution of aluminum chloride may be dabbed lightly on the feet at night, allowed to dry and then washed off in the morning. The feet and inside's of the shoes should also be dusted with talcum powder and boric acid.

• "ATHLETE'S FOOT"

Virtually every one harbors the athlete's foot germ or fungus. The most important factor in bringing it out of hiding is foot moisture; the fungus also thrives in dead skin. Summer provides the most favorable conditions for infection, especially at beaches and in pools and showers, as well as through exercise and sweating.

Prevention: Treating shoes on the inside with formaldehyde or ultraviolet rays is a futile precaution because the fungus will become implanted in the shoes as soon as they are worn. Attention should be concentrated on keeping the feet dry rather than on avoiding contact with the fungus in public gymnasiums, swimming pools, etc. The former is vital, the latter is futile. And since most adults are already infected with the fungus, measures such as foot baths in those places are likewise futile.

But because the feet are likely to be moist after swimming or visits to gymnasiums, the toes and the area around them should be sponged with rubbing alcohol or $\frac{1}{2}\%$ tincture of iodine ("mild" or 2% tincture of iodine may be diluted with

4 parts water or alcohol to make a $\frac{1}{2}\%$ tincture). After the iodine or alcohol has dried on the skin, dust the feet liberally (especially the skin between the toes) with plain unscented talc¹ and put a couple of shakes into your shoes and stockings. It is important to do this immediately, before putting on shoes and stockings.

Washing the space between the toes once or twice daily with alcohol or iodine will help remove dead skin and nail debris and will act as a mild anti-perspirant. Folded cigarette paper or small wads of lamb's wool placed between and under those toes most prone to infection will prevent chafing and absorb perspiration. This routine is particularly useful for persons whose feet tend to perspire freely.

Try to wear cotton or lisle hosiery; it provides the best ventilation of the toes and good absorption. Make sure that your shoes are sufficiently broad to permit movement of the toes. Shoes with perforated lasts will encourage cooling and ventilation of the feet.

Cure: Acute or active infection with the athlete's foot fungus produces various types of skin eruptions and discomfort. If you're hypersensitive to the fungus, you should be under the care of a physician, since the hypersensitivity will necessitate a careful use of drugs. In any case, injudicious application of drugs—salves or lotions—is apt to aggravate the infection. For this reason avoid all proprietary remedies and cures for athlete's foot such as *Absorbine Jr.*, *Listerine*, *Pepsodent Antiseptic*, *Black & White Ointment*, etc. They are not compounded for individual requirements and sometimes aggravate rather than relieve. Avoid the so-called "Pheno-Camphor cure." It's more likely to burn the skin than cure the athlete's foot infection.

Small cracks or tiny blisters between the toes should be given the treatment described above. If there is swelling, redness, marked blistering and itching, you should try to see a doctor. If this is impossible, bathing your feet in potassium permanganate solution at least twice daily for a half hour will be soothing. The solution is made by dissolving one five grain tablet of potassium-permanganate in $1\frac{1}{2}$ quarts of cold tap water.

Before going to bed, you can apply calamine lotion (with

¹ The "Best Buy" in plain, unscented talc is Pure Talc, U.S.P. available at most drug stores.

or without phenol) to diminish inflammation if the itching and swelling are still unrelieved. If you haven't time for a potassium-permanganate foot bath before leaving the house in the morning, sponge your feet with alcohol or mild iodine tincture solution and apply dusting powder and cigarette paper or lamb's wool. This procedure should be repeated after you return from work in the evening. A change of hosiery at this time is also helpful.

If this seems like a too-troublesome routine, remember that the condition is difficult to cure permanently and that a relapse will occur unless thorough precautions are taken. Of course, milder cases may require merely the use of a dusting powder once or twice a day to keep infection under control.

When the infection is characterized by thickening or extreme scaliness of the skin (usually on the soles of the feet), lotions or foot baths are less effective than salves. Doctors often purposely prescribe counter-irritant salves which cause scaling, but they are too hazardous for self-medication. The safest home remedy for relieving dryness of the soles is a bland ointment such as zinc oxide paste or boric acid ointment.

Bear in mind that by no means every skin eruption of the toes or feet is athlete's foot. If the disorder is severe or does not clear up with the remedies above, consult your doctor.

"FEMININE HYGIENE"

No commercial preparations—liquids, powders, foams, tablets, suppositories or jellies—can by themselves be relied upon for the "feminine hygiene" for which they are advertised. Many of them, such as *Lysol* and *Zonite*, are injurious; the former is known to have caused several deaths.

There are, furthermore, no medical preparations which in themselves have any value in the treatment of leucorrhea (a white vaginal discharge). Leucorrhea is not a disease, but a symptom, the cause of which must be known before any effective form of treatment can be prescribed.

The douche preparations advertised for their "cleansing" value should certainly not be bought. Regular washing of the vaginal canal is not only unnecessary, but may be harmful. A douche should be employed only when advised by a physician for the treatment of a specific condition.

"Daintiness" depends on sufficiently frequent bathing and clean clothing, not on douching.

FIRST AID KITS

From the point of view of price as well as quality, the best way to get a good first aid kit is to assemble it yourself. One trip each to a drug store and a 5&10¢ store should suffice to obtain the ingredients. The cost of a general emergency kit for home or camp should be about \$4 or \$4.50 including container. Metal is sturdy, but in its absence, fibre or heavy cloth is quite satisfactory. A smaller kit for hiking or for the automobile should cost from \$1 to \$1.50. The ingredients specified by the Red Cross as essential are listed below (none of the commercial kits examined by CU contained all these ingredients) :

First aid instruction book (American Red Cross)
 Triangular bandages (two are essential, more desirable)
 1-inch adhesive compresses (such as Band-Aid)
 Assorted sterile bandage compresses
 Sterile gauze pads (about 3 inches square)
 Sterile gauze pad (about 1 yard square)
 Picric acid gauze
 Burn ointment (such as 5% tannic acid jelly)¹
 Iodine, mild tincture (2%)
 Aromatic spirits of ammonia
 Inelastic tourniquet (useful but not essential if there are adequate triangular bandages in the kit)
 Scissors
 3-inch splinter forceps
 Paper cups
 1-inch and 2-inch roller bandages
 Wire or thin board splints
 Castor oil or mineral oil for the eyes
 Useful though not essential items include a few large safety pins, adhesive tape, a knife and a medicine dropper.

A small first aid kit for hiking or for the automobile should contain:

First aid instruction book
 1-inch adhesive compresses
 Sterile gauze pad (about 3 inches square)
 Sterile gauze pad (about 1 yard square)
 Triangular bandages
 Burn ointment
 Iodine (2%).

¹ See p. 150 for a discussion of first aid treatment of burns.

(Continued next page)

Any kit should be arranged so that the contents are all accessible and the unused materials are not contaminated by handling. The unit type of prepared kit is superior to the ordinary commercial kit in these respects. The unit type is made up of packages of standard size, each containing one or more individual dressings or drugs (iodine, tannic acid, etc.). Contents and some simple instructions for their use are marked on each package.

It is wise to keep the first aid kit for the home as a separate unit in the medicine chest. After each use every kit should be carefully gone over and replenished.

From the *Reports*, April 1942.

GLANDULAR (ENDOCRINE) PRODUCTS

The study of the endocrine glands has enabled physicians to treat successfully hitherto intractable disorders. Diabetes mellitus and diabetes insipidus, myxedema, Addison's Disease, disorders of the parathyroid gland and bones and certain disturbances in the function of the sex glands can be more or less successfully treated by specific hormones derived from natural sources or synthesized. These hormones are potent drugs which can be used safely and effectively only under the supervision of a skilled physician.

Besides these active products, more than a thousand unscientific glandular products are marketed to the medical profession and to the public—most of them useless, many potentially harmful. They were never more aptly described than as "heterogeneous mixtures of inert substances which include all but the hoof and hide of our domestic animals."

With few exceptions—notably thyroid—those that are sold to be taken by mouth are worthless. Dried extracts of ovaries, pituitary gland, thymus, pineal gland, adrenal gland and testes are prepared and marketed for dwarfism, obesity, disorders in sexual function, hairiness of face or body, small or pendulous breasts, cold hands and feet and many other conditions. Not one or any combination of these oral gland products will have any effect on these symptoms. Those preparations that are valuable in medicine are also potentially dangerous and must be administered by a physician.

From the *Reports*, December 1939.

GOITER AND IODIZED SALT

The best means of preventing simple goiter is the use of iodized salt. One part of sodium or potassium iodide to 10,000 parts of salt (.01%) is recommended by public health authorities as the best iodized salt combination. It should be used instead of plain salt by all persons in every region of the country.

If simple or any other goiter is already present, no iodine preparation should be taken without the supervision of a physician, since harm can result. Iodized salt may aggravate acne.

From the *Reports*, May 1941.

HALITOSIS AND MOUTH WASHES

Halitosis has many causes. Diseases or abnormalities of the nose, throat or mouth will produce bad breath only if they are severe and of long standing. Sinus disease rarely causes bad breath. "Brown" morning taste may be cured or lessened by proper brushing of teeth before retiring. Temporary halitosis due to eating of garlic or onion is caused chiefly by absorption from the intestines of aromatic organic material, which is carried in the bloodstream to the lungs. Only an insignificant part of the odor is due to particles retained in the mouth or teeth. Swishing the mouth with a so-called antiseptic may rid it of these few particles, but the antiseptic can have no effect upon the intestinal absorption of the aromatic substance or its excretion by the lungs.

Some women tend to have a disagreeable breath odor for several days before the onset of menstruation. The cause of this odor is unknown, but since it is a systemic disorder, an antiseptic has absolutely no effect upon it. Likewise, constant smokers may have a characteristic bad breath which no amount of antiseptic will correct.

A coated tongue may or may not be associated with a bad taste or bad breath or both. This tongue condition may in some cases be due to an excessive amount of fats in the diet. By balancing the diet and scraping and brushing the tongue, the breath may be made normal.

The commonest cause of habitual halitosis is disturbance in digestion and in absorption of fats. As a result of this disturbance, malodorous substances are produced and carried in

the bloodstream to the lungs and then excreted onto the breath. A change in the amount or character of fats in the diet may be necessary to correct the disorder; neither Listerine nor any other mouth wash can cure it.

HAY FEVER

The regions in North America entirely free from trees, grasses, weeds or their pollens are few indeed. But several cities and resorts are reported to have sufficiently low ragweed-pollen counts to offer at least some relief to the ragweed sensitive patient. Among these are Sacramento, Miami, Reno, Portland (Ore.), Seattle, Spokane, Prince Albert (Saskatchewan), Mexico City and the White Mountain resorts. The cost of vacationing in these regions, however, makes such a method for the treatment of hay fever impractical for most of the people so affected.

The use of air filters or conditioners gives protection, of course, only while the patient is in the room equipped with them.

Mask filters, worn over the nose and mouth, and nasal filters (such as *Dr. Weaver's Nasal Filter*) may keep pollen from entering the nose or throat but do not prevent entrance of pollen into the eyes, so that only slight help is obtained. Besides such masks only substitute one type of discomfort for another; few people want to be muzzled or have their nostrils plugged.

Most successful and practical of the methods of preventing hay fever is the one known as immunization or desensitization. The symptoms—sneezing, watering eyes and dripping nose—occur mainly in certain seasons. The physician determines the pollens to which a patient is sensitive by taking a detailed history of the case, tracing seasonal occurrence of the fever, and also by skin tests. Gradually increased doses of the pollens are injected before the season begins, so that by the time the pollens are in the air, the patient has acquired partial or complete immunity.

If the injection method fails (as it does in about 20% of the cases), if it cannot be obtained in time, or if the service is unavailable for some other reason (often economic), the so-called "vaso-constrictor" drugs may give partial or temporary relief.

The most useful of these drugs in the opinion of modern doctors are:

Solution of Epinephrine Hydrochloride 1:1000 U.S.P.

Ephedrine Hydrochloride or Sulphate U.S.P. 1% solution.

Neo-synephrin Hydrochloride $\frac{1}{4}$ of 1%.

Propadrine Hydrochloride 1%.

Benzedrine Solution 1%, and Benzedrine as widely used in the Benzedrine Inhaler.

All of these drugs, except for the last, are best taken in aqueous, or normal salt (isotonic) solutions; two or three drops in each nasal cavity several times daily is usually sufficient.

These drugs may temporarily diminish congestion of the mucous membrane, but they may cause undesirable side-effects, such as rapid or forceful beating of the heart, nervousness, faintness and insomnia. Sensitivity varies considerably in different persons, so that caution should be the watch-word when they are used. Unfavorable reactions are likely to be especially intense or serious with too frequent or indiscriminate use of the *Benzedrine Inhaler*.

Estavin drops for the eyes, popular for many years, are made from rose petal. Whatever effectiveness they have is probably due to the presence of an astringent agent similar to tannin.

INDIGESTION

The term "indigestion" covers many symptoms which have different causes and therefore require different treatments.

Indigestion may be caused by organic disease of some part of the digestive tract (stomach ulcer, appendicitis, disease of the gall bladder) or by some disease entirely outside the digestive tract (scarlet fever, cold, heart disease, tuberculosis). A temporary poisoning, such as may result from excessive quantities of alcohol, may be another cause. Perhaps the commonest cause of indigestion is emotional upset.

A warm or tepid bath will often quiet nerves and thus relieve an attack of "gas," distention and belching associated with nervous indigestion. A compress of a hot wet towel spread over the entire abdomen is often very soothing (see "Physical Therapy," p. 182).

A simple powder such as bicarbonate of soda (see "Al-

kalizers," p. 145) may give some relief in mild cases of indigestion with "heart-burn." Prolonged or frequent use of alkalizers may, however, aggravate indigestion and also cause "alkalosis." Repeated attacks of "sour" or "acid stomach" demand medical attention.

Laxatives and cathartics should never be taken for an attack of "acute indigestion." The attack may be due to acute appendicitis, in which case a laxative or cathartic could cause rupture of the appendix and peritonitis.

See the *Reports*, October and November 1938 and July 1940. From "Good Health and Bad Medicine," by Harold Aaron, M.D. (see page 384 of the *Buying Guide*).

NOT ACCEPTABLE

The following products cannot be relied upon in cases of indigestion, and in some cases repeated use may be harmful:

Alka-Seltzer.
Bell-Ans.
Bisodol.
Bromo-Seltzer.

Citrocarbonate.
Phillips' Milk of Magnesia.
Sal Hepatica.
Tums.

INSOMNIA

Insomnia (sleeplessness) is a symptom that may be caused by many ailments. Elderly persons frequently are subject to temporary or chronic sleeplessness. Mild sedatives are usually necessary. Toxic insomnia results from unusual sensitivity to or excessive indulgence in coffee, alcohol or tobacco. Those readily affected should not drink coffee, tea or cola drinks for at least four or five hours before going to bed.

Insomnia due to physical illness responds to treatment of the underlying disease. Temporary nervous insomnia due to unusual emotional stress may be helped by a warm bath, a hot drink or both. *Ovaltine* and other food nostrums supposed to relieve insomnia are of value only as hot drinks, and money spent on them is largely wasted. Drugs to induce sleep should never be taken without the advice of a physician because, although they are often effective, they may also be habit-forming or cause undesirable reactions.

Frequent or persistent insomnia is a symptom of a nerve or psychological disorder and should be treated by a physician or psychiatrist.

LINIMENTS, POULTICES AND SALVES

Liniments are useful for the relief of muscular aches following hard exercise or exposure to wet and cold. Along with other measures prescribed by a physician, they may also be helpful for the relief of joint disorders and neuralgia. They will not, however, accomplish the wonders promised by advertising copy.

A liniment rubbed on the skin or used for massage should produce no more than a mild redness of the skin. Liniments or salves do not penetrate more than a minute distance below the skin surface. Claims such as *Baume Bengué's*, which indicate or imply penetration directly to muscles or deep painful regions, are misleading.

Most liniments are solutions or mixtures of irritating drugs in an oily, soapy or alcoholic base. Rubbing a sore muscle or back with a liniment causes a flow of blood to the sore area and thus tends to relieve the pain. As a matter of fact, the rubbing or massage may be more important than the liniment. In some cases, areas not immediately below the surface which is rubbed are benefited as the result of "reflex action."

Although many drugs are used as ingredients of liniments, the principal one is often alcohol. Liniments may contain turpentine, camphor and even red pepper. The only significant difference between the various liniments is in the degree of irritation they cause. Many are extremely irritating to the skin and mucous membranes, and serious burns, blisters or infections may result from their use. The skin of children particularly is likely to suffer from the application of a strong liniment such as *Sloan's*. Plain rubbing alcohol will probably cause the least irritation. Witch hazel is just as satisfactory and easier to obtain. Since the rubbing and kneading are most important, however, a simple mineral oil or cold cream may be used as a lubricant for massage.

A convenient and very effective method of home treatment is to apply hot wet compresses to the sore or aching part. A turkish towel soaked in hot tap water makes an excellent compress. A hot water bottle (not an electric pad) may be placed over the compress to prolong the heating effect. For some parts of the body where a compress cannot be applied, a heating lamp may be used to relieve soreness.

A mustard poultice will give prolonged counter-irritant

effect, but should be used with caution on sensitive skins. Mustard plasters, more convenient than poultices, may be bought ready-made. They are applied to the chest and the back usually for about 20 minutes each. Sensitive skins, however, cannot tolerate application for that length of time.

Rubbing salves for the treatment of "chest colds" or the "common cold" have little effect. Many, like *Penetro*, *Musterole*, *Mentholatum* and *Vicks' Vaporub*, contain menthol, camphor or volatile oils and give a sensation of warmth or irritation to the area of skin on which they are rubbed. A similar effect can be obtained with non-proprietary products such as Camphorated Liniment, U.S.P.

Other remedies are odd and irrational, such as *Iodex*, which contains a small amount of free iodine, and *Aspirub*, which contains aspirin. Neither iodine nor aspirin will penetrate directly from the skin to a deep inflamed area.

No preparation applied to the skin will reach the bronchial tubes or cure a cold or bronchitis. But an aching sensation in the chest which often accompanies a "common cold" or grippe may be relieved somewhat by rubbing on Camphorated Liniment or applying a mustard poultice or plaster, with due regard for sensitivity of the skin. Chest pain, however, may also be a symptom of lung infections, including pneumonia, and medical care is imperative if pain is associated with fever.

ACCEPTABLE

Rubbing Alcohol or pure Ethyl Alcohol, 70%.

Camphorated Liniment, U.S.P.

Witch Hazel.

Mineral Oil or **Cold Cream**.

Bay Rum.

Oil of Wintergreen (diluted with an equal or double quantity of olive oil).

Mustard Plaster (see precaution in text).

NOT ACCEPTABLE

Because of irrational composition, misleading claims or excessively irritant effects:

Absorbine Jr.

Aspirub

Baume Bengué

Bet-u-lol

Minard's Liniment

Minit Rub

Moone's Emerald Oil

Musterole

NOT ACCEPTABLE—CONT'D

Iodex
Mentholatum
Omega Oil

Penetro
Sloan's Liniment
Vicks' Vaporub

The Buying Guide is not intended for the bookshelf. Carry it with you when you go shopping. It is printed in this compact, pocket size so that it will be convenient to put in your pocket or handbag. It is fully indexed so that you will find it easy to use. Make your Buying Guide work for you.

MINERAL OIL

Mineral oil is pure liquid paraffin or petrolatum. If properly refined, it should be odorless, tasteless and colorless. Viscosity (rate of flow) and specific gravity (weight per unit volume) measure the heaviness or body of a mineral oil. They vary considerably in different oils. Heavier oils are generally considered better. There is no essential difference between Russian and American oil.

All brands tested met U. S. Pharmacopoeia standards for the grade with which they were labeled, but not all met the more exacting Toilet Goods Association (TGA) standards. The term "extra heavy" used on some labels was found to have no significance; many oils so labeled were lighter than standard heavy oils.

CU tested two samples of each brand for viscosity (ability to flow), specific gravity, carbonizable substances (impurities), acidity, cloud point and presence of sulfur compounds. All brands examined were found to be colorless, tasteless and odorless at room temperature. At higher temperatures a few exhibited a paraffin taste and odor. Packaging, net contents and labeling of each brand were also considered.

Viscosity was given greatest consideration in the ratings. From the *Reports*, March 1942.

(Continued next page)

HEAVY MINERAL OIL

BEST BUYS

The following oils of the "Acceptable" list were judged to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Macy's U.S.P. Heavy. 27¢ per pint.

CD U.S.P. Heavy. 58¢ per quart; cost per pint, 29¢.

NYPA Purest Extra Heavy. 29¢ per pint.

Gimbel's U.S.P. Extra Heavy. 29¢ per pint.

Ameroil U.S.P. Heavy. 33¢ per pint.

Septol U.S.P. Heavy. 23¢ per pint.

ACCEPTABLE

(In order of quality without regard to price. Prices given are for pint sizes)

Macy's U.S.P. Heavy (R. H. Macy & Co., NYC). 27¢.

Petroff Russian Extra Heavy (Stineway Drug Co., Chicago). 69¢.

Sargent Russian (Sargent Drug Store, Chicago). 65¢.

CD U.S.P. Heavy (Cooperative Distributors, NYC). Packed in quart cans at 58¢; cost per pint, 29¢.

NYPA Purest Extra Heavy (New York Pharmacists Ass'n, NYC). 29¢.

Bornn's Extra Heavy (Bornn Distilling Co., Brooklyn). 39¢.

Gimbel's U.S.P. Extra Heavy (Gimbel Bros., NYC). 29¢.

Vyko U.S.P. Extra Heavy (Ketchum Co., NYC). 49¢.

Ameroil U.S.P. Heavy (The Owl Drug Co., San Francisco). 33¢.

Bajol Heavy (Bartell Drug Stores, Seattle). 49¢.

Squibb Heavy (E. R. Squibb & Sons, NYC). 59¢.

Pennsylvania U.S.P. Extra Heavy (Pennsylvania Laboratories, NYC). 39¢.

Puretest U.S.P. Heavy (United Drug Co., Boston). 59¢.

Edvic U.S.P. Extra Heavy (Edvic Importing Co., Brooklyn). 29¢.

Septol U.S.P. Extra Heavy (Bartell Drug Stores). 23¢.

NYPA Russian Extra Heavy (New York Pharmacists Ass'n). 49¢.

Altest U.S.P. Extra Heavy (The Bon Marché, Seattle). 49¢.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Re-read them now and then.

ACCEPTABLE—CONT'D

- Superior Heavy** (R.D.A. Sales Corp., NYC). 39¢.
Albolene (McKesson & Robbins, Inc., NYC). 69¢.
Parke-Davis Heavy (Parke, Davis & Co., Detroit). 53¢.
Ward Russian Heavy (Ward Chemical Co., Chicago). 69¢.
Jefferson U.S.P. Extra Heavy (Jefferson Products, Brooklyn). 39¢.
Saxon U.S.P. Extra Heavy (Royal Mfg. Co., Duquesne, Pa.). 49¢.
United Whelan U.S.P. Extra Heavy (Whelan Drug Co., Inc. & Associated Companies, NYC). 49¢.
Rusole U.S.P. Heavy (Crescent Pharmacal Co., Long Island City, N. Y.). 43¢. Mislabeled: net contents not stated. 1 pint as measured.
Sears' Challenge U.S.P. Heavy Cat. No.—584 (Sears-Roe-buck). 29¢ plus postage.
Ward's Cat. No.—5847 (Montgomery Ward). 37¢ plus postage.
Sears' Approved U.S.P. Extra Heavy Cat. No.—580 (Sears-Roe-buck). 37¢ plus postage.
Faircrest Russolax U.S.P. Extra Heavy (The Fair, Chicago). 39¢.
Hamilton U.S.P. Heavy (Hamilton Products Co., NYC). 17¢.
Purity U.S.P. Extra Heavy (Purity Drug Co., NYC). 49¢.
Old House Russian U.S.P. Extra Heavy (Schieffelin & Co., NYC). 69¢.
Ward's Palatable Cat. No.—3067 (Montgomery Ward). 73¢ a quart, plus postage; cost per pint, 37¢.
F & N Russian U.S.P. Extra Heavy (Frederick & Nelson, Seattle). 49¢.
Genuine B.K.U.—U.S.P. Extra Heavy (Jackwill Pharmacy, Woodside, N. Y.). 49¢. The letters B.K.U. do not signify imported oil.
O'Brien's U.S.P. Extra Heavy (O'Brien's Pharmacy, Chicago). 59¢.

MEDIUM MINERAL OIL

ACCEPTABLE

(In order of quality without regard to price. Prices given are for pint sizes)

Webster U.S.P. Extra Heavy (Webster Cut-Rate Drug Stores, Brooklyn). 39¢.

Dash U.S.P. Extra Heavy (Dash Drug Co., NYC). 39¢.

Laxseed Russian U.S.P. Extra Heavy (The Laxseed Co., NYC). 59¢.

Minoyl U.S.P. Extra Heavy (Walgreen Co., Chicago). 49¢.

Premo Russian U.S.P. Extra Heavy (Premo Pharmaceutical Labs., Inc., NYC). 69¢.

Dermolene Russian U.S.P. Extra Heavy (Dermon Drug Co., Brooklyn). 49¢.

Nujol U.S.P. Heavy (Stanco Inc., Bayway, N. J.). 49¢.

Septol U.S.P. Light (Bartell Drug Stores, Seattle). 19¢.

Atlas U.S.P. Heavy (Atlas Drug & Chemical Co., NYC). 27¢.

Ameroil Regular U.S.P. (The Owl Drug Co., San Francisco). 19¢.

Minolene U.S.P. Heavy (Purepac Corp., NYC). 39¢.

Samson's U.S.P. (Special Sales Products Co., Boston). 59¢.

LIGHT MINERAL OIL

ACCEPTABLE

(In order of quality without regard to price. Prices given are for pint sizes)

Economy U.S.P. (R.D.A. Sales Corp., NYC). 29¢..

Vladamir Imperial U.S.P. Light (Dr. Sachs Laboratories, Chicago). 39¢. Russian name does not signify imported oil.

Halsey U.S.P. Light (Halsey Drug Co., Brooklyn). 17¢.

Zenith U.S.P. Light (Zenith Drug, Inc., Irvington, N. J.). 23¢.

Benly U.S.P. Light (Benly Products Co., Philadelphia). 13¢.

Sargent (Sargent Drug Stores, Chicago). 50¢.

Blue Cross U.S.P. (Blue Cross Products, NYC). 25¢.

Orbol Russian U.S.P. (Orbit Laboratories, Brooklyn). 29¢.

Misbranded: should not be called a Russian oil.

OBESITY CURES

Obesity helps bring on many serious disorders. Consequently, doctors always give it serious attention, especially in middle-aged persons. Obesity is occasionally due to an upset of one or more of the endocrine glands (thyroid, pituitary, suprarenal and others). But this "endocrine" type of obesity is rare. Generally, obesity is due to improper eating habits.

Diet is therefore the basis for any logical treatment of obesity, but the diet must be well balanced to meet minimum energy requirements of the individual. Short cuts to slimness by adherence to drastic, ill-balanced diets may be disastrous.

Vitamin and mineral preparations, widely promoted as food substitutes and obesity treatments, cannot take the place of a scientifically planned diet. Calcium is adequately furnished by skim milk; phosphorus and other minerals by meat, eggs, vegetables and whole-grain wheat products. But if the planned diet lacks certain essential vitamins, physicians often supplement the diet with properly balanced vitamin preparations.

Exercise and sports are useful in conjunction with a planned diet but cannot take its place. Rubber appliances, rubber garments and special exercises for a local area of the body are of little value and are frequently harmful. Fat cannot be massaged or kneaded away from a local area. General weight reduction measures will cause loss of fat from areas where it is in excess.

PAIN

The value of rest for relief of pain and of physical measures such as hot or cold applications is insufficiently appreciated. Such measures are often far more effective than drugs. Thus, some types of headache will respond more quickly to a half hour of lying down or a cold compress or ice-bag on the forehead or head than to aspirin or other drugs. Neuralgic shooting pains in the head or elsewhere will often be relieved by hot wet compresses or a hot water bottle (see "Physical Therapy," p. 182 for technique) without the use of drugs.

Of the drugs advertised for the relief of pain, aspirin is probably the safest, but see page 149 for counter-indications and further discussion of aspirin.

For the average person, one or two 5-grain tablets every

three or four hours may have a relieving effect. Larger doses should be taken only at the direction of a physician. A large pinch of bicarbonate of soda should be taken with the aspirin to diminish possible stomach irritation.

Analgesic (pain-killing) compounds often contain aminopyrine, acetanilid, acetophenetidin, cinchophen, or similar drugs. Even single doses of acetanilid in average quantities (about 3 grains) can cause weakness, skin disorders, blood changes, &c., in very sensitive persons. Larger doses may cause restlessness, delirium and collapse. Death from heart failure may in rare cases occur after large doses are taken, particularly in those with heart trouble. But the main dangers of acetanilid are that it can lead to strong addiction and to chronic poisoning.

Antipyrine and acetophenetidin (also called phenacetin) are other drugs which may be present in "pain-killers." Their action is similar to that of acetanilid, but they are less toxic and less likely to cause addiction.

Aminopyrine and cinchophen are even more dangerous drugs than acetanilid and acetophenetidin. They should never be used except upon a physician's prescription. And a physician should, of course, be consulted in the event of any severe or protracted pain. Aminopyrine is responsible for a blood disease known as agranulocytosis, which has caused hundreds of deaths.

The Federal Food, Drug & Cosmetic Act requires that the labels of all remedies containing these drugs and sold in interstate commerce state the amount of drug present per dose.

Dysmenorrhea or menstrual pains are frequently relieved by rest, a warm bath (see page 182), and application of a hot-water bottle or ice bag (whichever proves better) to the lower abdomen. One or two aspirin tablets every two or three hours may be helpful. Avoid aminopyrine. Agranulocytosis is more likely to occur if aminopyrine is taken just before or during the period than if it is taken at other times.

Earache requires immediate medical care, since it may be a symptom of pus in the middle ear or of mastoiditis. Considerable relief from pain may often be obtained from a hot-water bottle or a heat lamp (see page 182). No ear drops should ever be used unless prescribed.

Toothache requires immediate dental attention. Until this is available some relief can be obtained. A thick paste of bicar-

bonate of soda pressed into a cavity may give considerable relief if the cavity is accessible. If not, a small wad of absorbent cotton soaked in N. F. (National Formulary) Toothache Drops may be tried. One or two aspirin tablets may help.

Toothache waxes and drops commonly contain phenol (carbolic acid), but the N.F. drops mentioned above do not.

Headache is a symptom of many diseases, some of them serious. The occasional headache or achy feeling that so many of us get is often due to fatigue or nervous strain or to a cold. Such pain can be relieved by one or two aspirin tablets, hot or cold compresses on the head, and rest. If stronger remedies seem necessary, a more serious cause must be sought.

A great many proprietary headache remedies contain bromides. As with acetanilid, there is a danger of poisoning; and, like acetanilid, bromides taken in excessive doses or over long periods can cause or aggravate the very symptoms they were intended to relieve.

NOT ACCEPTABLE

Because they contained the following:

• ACETANILID OR SIMILAR COMPOUNDS

A.D.S. Cold Tablets.

Anacin.

B-C for Headaches and Neuralgia.

Bromo-Seltzer.

Capudine.

Darol.

Esterin.

Felsol.

Grove's Laxative Bromo Quinine.

Kurb.

Dr. Miles Nervine.

Stanback Headache Powders.

Yum for Headache.

• AMINOPYRINE

Under the present Food, Drug & Cosmetic Act, the presence of aminopyrine in a product must be stated and warning of its dangers given on the label. In some States the sale of products containing aminopyrine is not permitted except on prescription and in some the amount of the drug per tablet is restricted (but to a susceptible person a small amount may be nearly as harmful as a large, and in any event there is nothing to prevent the buyer from taking several tablets at once). Read the labels of all pain-killing drugs with care. Pyramidon is a brand name of aminopyrine.

PHYSICAL THERAPY

Physical therapy is of value in many ailments, acute and chronic. But expensive electrical and light equipment are not ordinarily needed for home use. Massage, exercises, water, air, heat and sunlight are other means of physical therapy which can be effectively used.

• INFRA-RED RAYS AND HEAT

Infra-red rays are nothing more or less than heat rays. In the devices used, these may or may not be accompanied by light. Heat may be obtained as well from a hot-water bottle, hot wet packs, poultices and hot-water baths. The source used depends upon the area to be treated and whether local or general application is desired.

Local applications of heat are valuable in the treatment of arthritis, backache, bruises and sprains of joints or muscles.

Because heat-lamps are generally more easily manipulated than methods of applying heat directly, they are sometimes preferable for home use. And often they can be used on regions of the body where pads, compresses or hot-water bottles can't.

You can get a satisfactory heat lamp in a hardware, photographic, drug or electrical supply store for \$1 to \$2. Such a lamp consists of a cup-shaped reflector attached to a stand or a rubber covered clamp. Because the latter type can be fastened to the back of a chair or the head of a bed, it is preferable. The most useful bulb for the lamp is a 250-watt Mazda CK.

Sometimes hot wet compresses are superior to other methods of conveying heat. Sore muscles, a backache or an attack of "gas" may be relieved more readily by a hot wet compress than by a hot water bottle or heat lamp. The compress may be made by wringing out a thick cloth or towel in hot water and then applying it to the painful area. A rubber, gutta-percha or oiled silk sheet covering the compress will help to retain the heat and the moisture.

• DIATHERMY

The heat produced in the use of diathermy is generated within the body by the application of high-frequency electric current. Because of the depth of penetration, it is used by

physicians for treatment of pain and certain other conditions in deep-seated structures of the body. The application of diathermy has many dangers, and it must never be used for self-treatment. *Do not buy or rent diathermy apparatus for use at home.*

• ULTRA-VIOLET RAYS

The number of ailments for which ultra-violet radiation may be used with benefit is not nearly so great as most people suppose. It is definitely known that ultra-violet ray exposure will *not* (1) permanently lower blood pressure, (2) prevent or relieve colds, (3) cure anemia, (4) prevent or cure baldness, (5) increase mental activity.

Ultra-violet may be beneficial for the cure and prevention of rickets, the treatment of some particular types of tuberculosis, and the healing of sluggish wounds. *For such conditions it must, however, be applied under medical supervision.* Even very short exposure to ultra-violet rays may produce, in some people, severe burns and conjunctivitis (inflammation of the eye). In certain sensitive persons repeated exposure may lead to degenerative changes or even to cancer of the skin. Kidney damage has also been reported following excessive exposure. Uncontrolled ultra-violet radiation is particularly dangerous in pulmonary tuberculosis, certain skin disorders, and in most infections accompanied by fever.

Since home treatment of rickets should not be attempted by the layman, sun lamps which are safe to use at home should be considered useful only in tanning the skin. And since it is not known that a tanned skin is any healthier than an untanned one, the ultimate value of such lamps seems to depend on whether one finds a tanned skin attractive enough to warrant spending the money necessary to buy a good lamp.

POISON IVY AND POISON OAK

The best measure for the prevention of ivy poisoning is to learn to recognize the plant, so that it can be avoided. In the early Fall, when the danger of poisoning is greatest, the poison-ivy vine has characteristic glossy, dark green leaves with three leaflets, white berries and reddish stems. Poison oak is very similar to poison ivy.

(Continued next page)

Use of a yellow laundry soap (*Fels-Naphtha* or *Kirkman's Borax*) under a shower almost immediately after exposure will frequently remove the poison before inflammation sets in. Ordinary toilet soap is less effective. Once blisters or redened itching areas appear, soap and water will cause further irritation and should be avoided. The application of calamine lotion or cold wet dressings (see "Antiseptics," p. 145) will relieve the inflamed skin somewhat. Some doctors have had success with the use of hypodermic injections of poison-ivy extract, for prevention. It is less effective after inflammation has set in. A method of oral immunization against poison-ivy is being tried now but is not yet available for general use.

SKIN AND SCALP DISORDERS

• ACNE

Acne is a skin disorder occurring chiefly in adolescence. The multitude of remedies applied in its treatment is simply a reflection of the fact that the fundamental cause is unknown. Much can be done, however, by the intelligent use of the following treatments.

All specialists stress the value of local measures. These include the liberal use of soap and water and the application of a lotion such as *Lotio Alba* freshly prepared, or a lotion containing resorcin or sulfur, with the object of keeping the skin somewhat dry. The scalp must always receive attention. Comedones or blackheads and pustules should be carefully extracted or evacuated. Self-treatment with comedone extractors is usually discouraged. Picking or squeezing of pimples is forbidden.

In most instances Roentgen (x-ray) therapy administered by a specialist is effective, but is not used unless local remedies (lotions, salves, &c.) have failed materially to benefit the condition in a period of one or two months. X-ray treatments are seldom given before the age of 15 to 17. Hair on the face is not caused or aggravated by x-ray treatment. Remember that x-ray treatment is dangerous except in the hands of a medical specialist.

Any evident dietary irregularities are corrected and most patients are told to discontinue taking chocolate and certain other foods such as sea food, cheese and nuts. Iodized salt is prohibited by most doctors. Patients are encouraged to eat a

well-balanced diet containing fresh fruit, vegetables, green salads, milk and lean meats. It is not believed, however, that indiscretions in diet are the cause of or the precipitating factor in most patients with acne. Carbohydrate foods or sweets (except for chocolate in some cases) have no influence on development of acne.

Vitamin preparations have no influence on acne. Yeast, including *Fleischmann's Yeast*, may make acne worse.

Sunlight or artificial ultra-violet rays are temporarily useful in producing peeling of the skin. In most cases the results obtained from sunlight are disappointing.

Acne of the chin and around the mouth is more resistant to treatment than acne in other areas. Consequently, expert medical care should be sought at once before scarring and disfigurement occur.

From the *Reports*, August 1940.

• "ATHLETE'S FOOT"

(see page 164)

• DANDRUFF & BALDNESS

It is normal to lose a small amount of hair daily and to have a small amount of dandruff and oiliness of the scalp. However, when dandruff and falling hair become excessive, it is an indication of a scalp abnormality requiring medical care.

The so-called "dandruff" germs found in dry or oily scalps are not the cause of dandruff. And neither dandruff nor oily scalp is a direct cause of baldness. It is probable, however, that the tendency to all three conditions runs in families.

A scalp will be maintained in a healthy condition by attention to good living habits and an adequate diet. There is no proof that the use of vitamins internally or externally has any effect on scalp disorders.

Proper local care of the scalp consists of a shampoo about once weekly with a plain soap, oil shampoo or tar shampoo. This will do more for the ordinary case of dandruff than any hair tonic. And brushing the hair vigorously for 5 to 10 minutes twice a day provides much better massage and stimulation of the scalp than can be obtained by patented massage or vibratory devices.

(Continued next page)

The value of almost all hair tonics is dependent to a large extent upon their alcohol content. While there is no harm in the use of such hair tonics, claims that they will prevent or cure falling of the hair are false. And all hair remedies are unsatisfactory substitutes for competent medical treatment of hair or scalp disorders.

The following formula can be used as a cleansing agent and lotion for combating dandruff to supplement your regular shampoo. It can be prepared by druggists:

| | |
|----------------------|------------------------------|
| Chloral Hydrate | 4.0 |
| Salicylic Acid | 4.0 |
| Glycerin | 6.0 |
| Alcohol } Water } | Enough of each to make 240.0 |

A few persons may find this lotion irritating because of sensitivity to one or more ingredients. If you notice any irritation, discontinue use of the lotion immediately.

Enough of the lotion to cover the entire scalp should be rubbed in with finger tips every night for a week. Then the scalp should be shampooed. The application of lotion and shampoo should be continued for several weeks or until most of the dandruff has disappeared.

For further information on dandruff and baldness, see the *Reports*, September 1941.

• ECZEMA

The term "eczema" has been used to cover a multitude of skin disorders. It is actually a disease of the skin having many causes and manifesting itself in the form of red, itching and discharging sores, spread over large areas.

The condition is often a serious one, and in most cases can be successfully treated only by a competent dermatologist. Eczema may be aggravated or made chronic by wrong treatment with patent medicines. For temporary relief of the itching, calamine lotion may be dabbed on, or cold wet compresses of boric acid, sodium bicarbonate or Burow's solution may be applied (see "Antiseptics," p. 145).

SORE THROAT

Whenever possible, a child who has a sore throat should be attended by a physician, since diphtheria, septic sore throat,

large scarlet fever, rheumatic fever, or some other serious infection may be the cause of it.

The pain of an inflamed throat can be relieved considerably by taking hot drinks frequently. Either milk or tea may be used; the addition of butter or honey confers no additional virtue. An ice collar or a cold, wet compress may be kept around the neck. A hot salt-water gargle (half teaspoonful of salt to a glass of hot water) every hour or so may give comfort. "Antiseptic" gargles are of practically no value.

Inexpert swabbing of the throat with argyrol or other preparations is not only useless but frequently harmful, since it may spread infection. If sore throat is accompanied by fever, rest in bed and medical care are imperative.

TONICS AND STIMULANTS

Tonics are advertised for poor appetite, insomnia, anemia, underweight, lack of pep, easy fatigability, sexual "weakness," "lost manhood," "female weakness" and other symptoms. Each of these symptoms is due to an underlying disorder which may require considerable investigation by a physician.

Chronic fatigue without organic cause is often a symptom of vitamin deficiency or of certain nervous disorders. When it is associated with nervousness, jitteriness or depression, it is called nervous exhaustion or neurasthenia. A deep-seated psychological or emotional maladjustment may be the cause of the symptoms. A frank discussion with a physician may help; often treatment by a psychiatrist may be necessary. Fatigue may be associated with a lack of satisfaction in sexual performance, or with other difficulties which a psychiatrist will know best how to treat. No matter what the cause of the fatigue, it will not be relieved by any proprietary medicine exploited to the public.

Gelatin may make a pleasant dessert, but it will not increase athletic performance, relieve fatigue or perform other advertised miracles.

Many other substances besides gelatin have been proposed for increasing physical endurance. Dextrose or ordinary sugar is helpful only during performance of severe physical exertion when the body supplies of sugar are temporarily depleted. For ordinary exertion and sport the sugar derived from good foods is sufficient.

(Continued next page)

There is no evidence that alkalizers and phosphate drugs increase endurance or relieve fatigue. Caffeine, a drug present in coffee, chocolate and cocoa, and in the cola drinks, has definitely stimulating effect on the body and mind. But the effect is slight (in some persons negligible) and too often is soon followed by a depression of both physical and mental efficiency.

"Iron tonics," advertised to the public for anemia, lack of pep, &c., contain an insignificant amount of utilizable iron compared with the amount of alcohol they provide. The temporary sense of well-being or improved appetite resulting from these tonics is due chiefly to the alcohol.

Amphetamine or *Benzedrine Sulfate* is a recently introduced and powerful stimulant, but its action is so unpredictable in many persons, and its toxic properties are so numerous and dangerous that it should be taken only under supervision of a physician.

Physicians prescribe tonics only as supplements to other treatment. Proprietary tonics encourage delay in seeking medical care. If they have any effect, they either mask the symptoms and give a false sense of security to the patient or cause irritation of the stomach and intestines. There are no known tonics specific for the ailments of women, even though many are widely advertised as such.

The following are a few of the brands on the market for which one or all of the above comments apply:

NOT ACCEPTABLE

| | |
|--|---|
| <i>Bradfield's Female Regulator.</i> | <i>Ovaltine.</i> |
| <i>Cardin.</i> | <i>Ovoferin.</i> |
| <i>Cox's Gelatin.</i> | <i>Prunidia.</i> |
| <i>Gude's Pepto-Mangan.</i> | <i>S.S.S.</i> |
| <i>Ironized Yeast.</i> | <i>Shapeley's Vegetable Prescription.</i> |
| <i>Kelp-a-Malt.</i> | <i>Tall's Female Tonic.</i> |
| <i>Peruna.</i> | <i>Tanlac.</i> |
| <i>Knox's Gelatin.</i> | <i>Tastyeast.</i> |
| <i>Lydia Pinkham's Vegetable Compound.</i> | |

VENEREAL DISEASES

The material that follows on the subject of prophylaxis for venereal diseases is confined to the two sides of this one page, and the page is numbered separately. This has been done as a consideration for parents and teachers who may not want to retain such information in the *Guide*. The material is presented as part of the educational campaign against venereal diseases.

• TECHNIQUE OF PROPHYLAXIS

The following description of the technique of prophylaxis is summarized from VD Bulletin No. 95 of the U. S. Public Health Service.

Prophylaxis means guarding against disease. The best method of guarding against venereal disease is to use a condom. Because of its importance, it is essential to have a well-made condom. Most condoms are government inspected, but a number distributed by "bootleg" methods are not. It is now considered that individual testing of condoms is unwise because the strain put on the condom by the test—such as inflation—may damage it. Buy a condom from a reliable druggist and ask him for the best grade.

Knowledge as to use of the condom is as important as the purchase of a good brand. The condom is delicately made. A finger nail can tear it. It should be kept in its original container until it is used. The condom should be applied where there is sufficient light to apply it without fumbling. During application of the condom, the tip should be held or twisted to avoid forming an air pocket. This lessens the chance of its breaking.

It is important that no contact should be made between parts that may be infected before the condom is put on. If the condom breaks during intercourse, wash immediately with soap and water and apply chemicals as directed below.

The penis should be withdrawn as soon as the male fluid has been discharged. This will prevent the fluid from coming in contact with the vagina, since the condom may slip off when the penis becomes soft.

After withdrawal of the penis, the condom should be removed with the tips of the fingers in one swift motion, turning it inside out as it comes off. After the condom is removed,

one should urinate immediately. Finally, the entire penis, scrotum, hairy parts and upper thighs should be washed with soap and water. The hands and face should also be washed. In fact, a complete soap and water shower or bath is desirable, and the sooner after contact, the better.

The application of chemicals to the genital organs was formerly considered more important than any other measure in preventing syphilis, gonorrhea and other venereal diseases. Now it is known that chemicals are useful merely to supplement and not to substitute for the condom and soap and water.

Chemical prophylaxis is used after exposure and begins with soap and water whether a condom is used or not. The best chemical solutions for the destruction of gonorrhreal germs are the silver protein solutions. To be effective they must be applied within one hour after intercourse. Only freshly prepared solutions should be used. They may be obtained without a prescription from a druggist. About one teaspoonful of 2% *Protargol* or 10% Mild Silver Protein should be injected into the urinary canal with an *Asepto* syringe.

To afford complete protection against syphilis, it would be desirable to anoint all the exposed parts with 30% Calomel Ointment U.S.P., rubbing it in thoroughly and inserting a pinch of it into the canal. The scrotum also should be rubbed with ointment. The genitals should then be wrapped in tissue or a cloth towel to protect the clothes. After four or five hours, remove the ointment with soap and water.

This prophylactic treatment is effective only if applied within a few hours after exposure. The sooner it is applied the greater is the likelihood of successful prophylaxis. An even better guarantee of success is to apply the treatment under the supervision of a physician.

For women, prevention is more difficult and should be attempted *only* by a physician. The best guarantee of safety against infection in a woman is in the use of a condom by the partner. Soap and water bathing is also important.

The most widely sold proprietary chemical preparations for the prevention of venereal disease are *Andron*, *Sanitube*, *Preventasan*, and *Squibb Prophylactic*. These consist essentially of Calomel Ointment. They will not protect against gonorrhea.

If the details of effective prophylaxis may seem burdensome, remember that it takes two weeks to six months to cure acute gonorrhea, and one to two years to cure early syphilis.

Toilet Goods

Toilet goods and cosmetics have been touched only lightly by the war. In November 1942, manufacturers are still free to produce just about the same quantity of cosmetics as last year, provided they can get the raw materials.

Pure alcohol for shampoos, face and hand lotions, mouth washes, perfume materials, shoe polishes, etc., has been curtailed, but all the leading brands are still available. There are also shortages of imported essential oils for perfumes. The shortage of fats and oils will not be permitted to affect the availability of soap, though changes are being made in composition.

ASTRINGENTS AND FACE LOTIONS

No astringent or face lotion will "refine enlarged pores," "remove wrinkles" or perform other advertised miracles. Most of them are simply mixtures of alcohol and water, with a little perfume and coloring matter. These are generally harmless to normal skin, although they have a drying tendency if used too often. Ingredients, such as carbolic acid, coloring matter or even perfumes may cause serious irritation in some especially sensitive skins.

The temporary "shrinking" of the pore openings which these astringents produce can be obtained much less expensively with ice, cold water or such alcohol solutions as witch hazel, bay rum or lavender water. People with dry skins should avoid use of alcohol solutions.

CLEANSING TISSUES

The features considered in testing and rating cleansing tissues were similar to those used in the analysis of toilet tissues (see p. 254). One difference between the two products is that nearly all the natural softness and absorptiveness of the original paper is retained in cleansing tissues; the necessary strength is furnished by packing the tissues either two- or three-ply.

Three of the thirty brands tested were packed three-ply;

the rest were double sheets. A 500 sheet box of the latter contains 250 units; the same size box of the former has 167 units. Triple sheets tend to be lighter and thinner than the double sheets.

Softness was not considered in the ratings because variations in degree of softness were too small to be significant. Prices in the ratings are given in terms of the cost of a box of 500. If this was not available, the cost of the largest box available is given.

In general, lighter paper is being used than in the past.
From the *Reports*, June 1942.

BEST BUYS

The following tissues of the "Acceptable" list were judged to offer the best value for the money in order of quality. For full details see listings under "Acceptable."

Nacella. 20¢.

Colonial. 17¢.

Queen Anne. 16¢.

ACCEPTABLE

(In order of quality without regard to price. Price given is for 500 single sheets, or 250 double sheets, each 9x10 inches, unless otherwise noted)

Nacella (F. W. Woolworth Stores). 20¢.

CD Cat. No. X 6611 (Cooperative Distributors, 114 E. 16th St., NYC). 25¢.

Sitroux (Sitroux Co., Inc., NYC). 25¢. 8½" x 9¾".

Princess (American Stores, Inc., Philadelphia). 8¢, 2 for 15¢. 200 sheets, 8¾" x 9¾". Cost per 500 sheets, 18.8¢.

Co-op Verisoft (National Cooperatives, Inc., Chicago). 23¢.

Pond's (Pond's Extract Co., NYC). 23¢. 8½" x 9¾".

Jean LaVerne (Owl Drug Co., San Francisco). 21¢.

Betty Woods (Betty Woods Laboratories, Hollywood, Cal.). 23¢.

Lexington (Bloomingdale's, NYC). 25¢.

Utility (R. H. Macy & Co., NYC). 31¢.

Lady Dainty (Safeway Stores). 19¢. 8½" x 10".

Colonial (Pender Grocery Co., Norfolk, Va.). 17¢. Labeled 9" x 10"; actually 8½" x 10".

Patricia Allen (Sontag Drug Stores, Los Angeles). 9¢. 200 sheets, 8" x 9". Cost per 500 sheets, 22.5¢.

ACCEPTABLE—CONT'D

- Blue Diamond** (Hearn's, NYC). 23¢.
Klenzo (Rexall Drug Stores). 23¢.
Belle Fleurs (San-Nap-Pak Mfg. Co., NYC). 21¢. 8" x 9".
Elizabeth Post (S. H. Kress Stores). 10¢. 230 sheets. Cost per 500 sheets, 21.7¢.
Queen Anne (A&P Stores). 16¢.
Martha Washington (San-Nap-Pak Mfg. Co.). 25¢. 600 sheets. Cost per 500 sheets, 21¢.
Sanettes (San-Nap-Pak Mfg. Co.). 12¢. 200 sheets. Cost per 500 sheets, 30¢.
Perfection (Walgreen Drug Stores). 25¢.
Jean Arlen (Hearn's). 26¢.
Park Royal (San-Nap-Pak Mfg. Co.). 13¢. 2 for 25¢. 300 sheets, 8" x 9". Cost per 500 sheets, 21¢.
Venida (Rieser Co., Inc., NYC). 25¢. Labeled 9" x 10"; actually 8½" x 9¾".
T.M.C. (T.M.C. Products, NYC). 15¢. 200 sheets. Cost per 500 sheets, 37.5¢.
Countess Lydia Gray (San-Nap-Pak Mfg. Co.). 21¢. Labeled 9" x 10"; actually 8¾" x 9¾".
Society (Walgreen Drug Stores). 25¢. 9" x 9".
Louise Andre (Emporium, San Francisco). 29¢. Labeled 9" x 10"; actually 8½" x 9¼".
Barbara Lane (Whelan Drug Co., NYC). 13¢. 2 for 25¢. 200 sheets, 8½" x 10". Cost per 500 sheets, 31¢.
Loress (Personal Products Corp., Milltown, N. J.). Available from Montgomery Ward as Cat. No.—4468, 2 boxes for 25¢ plus postage. 200 sheets, 8¾" x 9¾". Cost per 500 sheets, 31¢.
Broadway-Hollywood (Broadway Dep't Store, Los Angeles). 45¢. 250 sheets, 12" x 15". This is equivalent to 500 sheets of 9" x 10".
Super Fyne (Red & White Corp., Chicago). 23¢.
Soflin (National Retailer-Owned Grocers, Inc., Chicago). 17¢. 8¾" x 9¾".
Chee-Kist (F. W. Woolworth Stores). 20¢. 8" x 9¾". Packed three-ply.
Miown Feathersoft (Whelan Drug Co., NYC). 25¢.
Hazel (National Tea Co., Chicago). 22¢. 8¾" x 9¾".
Lynerest (W. T. Grant Co.). 25¢. Packed three-ply.
Fina (Liggett's Stores). 21¢. 8½" x 10". Packed three-ply.

(Continued next page)

ACCEPTABLE—CONT'D

Planet (Biltmore Paper Co., NYC). 9¢. 200 sheets, 8" x 10".
Cost per 500 sheets, 22.5¢.

Ward's Cat. No.—4423 (Montgomery Ward). 21¢ plus postage; 8½" x 9¾".

Montroy Cat. No.—4416 (Montgomery Ward). 10¢ plus postage. 200 sheets, 8¾" x 9¾". Cost per 500 sheets, 25¢.

Kleenex (International Cellucotton Products Co., Chicago). 13¢. 200 sheets, 8¾" x 9¾". Cost per 500 sheets, 32.5¢.

NOT ACCEPTABLE

Gimbel's 808 (Gimbel Bros.). 23¢. 8¾" x 9¾". Had low strength and very low absorption.

CUTICLE REMOVERS

Cuticle removers consist of a strong alkali dissolved in water and glycerin, to which perfume may be added. Since the manufacturing processes are not always carefully controlled, commercial brands may at one time or another contain an excess of alkali, which may permanently damage the fingernails.

Cuticle removers which are strong enough to dissolve the cuticle are not safe to use. The top layer of the skin is of the same general composition as the cuticle and as the cuticle dissolves, an appreciable amount of the skin near it may come off with consequent irritation and possible infection.

If the remover is sufficiently diluted to be safe, it will be less effective. In fact, it may be better to use warm soapy water instead; simply soak your fingertips in water, and push back the cuticle with a towel or an orange stick wrapped with cotton.

Cutting the cuticle may result in injury to the flesh around the nails, and consequent infection. Even if this does not happen cutting tends to roughen the cuticle and make it unsightly.

DENTIFRICES

The sole function of a dentifrice is to aid the toothbrush in keeping the teeth clean. Claims for special ingredients to do anything more are unfounded. There is no proof to support claims for digestive ferments in some products, supposed to

remove "film," nor is there even evidence that removal of "film" is necessary or desirable. "Alkalinizing" agents and antiseptics may actually irritate the mouth tissues; besides, a dentifrice is in the mouth too short a time to be effective in neutralizing mouth acids or combatting bacteria.

Although carbohydrates are believed to foster tooth decay, some dentifrices contain starch (a carbohydrate). The amounts probably are too small and are rinsed out of the mouth too quickly to cause damage, but the presence of starch is noted in CU's ratings.

Potassium chlorate and sodium perborate are dangerous substances which don't belong in dentifrices. Prolonged use of the former may be injurious to the general health of the user; the latter should be used only under the supervision of a dentist or physician. Dentifrices containing charcoal should not be used. Cases have been reported where charcoal has become embedded at the gum line, with removal possible only by surgery.

Gum massage is essential to mouth hygiene, but the tooth brush or the finger will do the job without the aid of any special dentrifrice.

Bad breath may be caused by eating certain foods, or by some diseases, or it may indicate tooth decay or a disease of the mouth. The strong odor of peppermint, clove or cinnamon may mask bad breath temporarily, but no dentifrice can cure it.

The choice between pastes and powders is essentially a matter of individual preference. The basic formula of both is the same; pastes have a binder like glycerine added to give the proper consistency. Powders are generally more economical to use. A good tooth powder to use is precipitated chalk, U.S.P., which can be bought at any drug store in pound tins. If you wish to flavor it, add four or five drops of either oil of peppermint or oil of wintergreen to each four ounces of powder.

Liquid dentifrices have been promoted on the claim that they contain no abrasive material. However, they sometimes stain the teeth, and manufacturers of liquid dentifrices themselves often recommend the occasional use of an abrasive toothpaste or powder.

A dentifrice should not be very abrasive. Powders should be neither too fluffy nor lumpy nor caked. Pastes should be

neither too thick nor too thin; they should retain their consistency at room temperature and should show little change with heat or cold. Liquids should pour readily but not too freely. All these factors were covered in CU's tests, along with degree of alkalinity or acidity, and the presence of sodium perborate, potassium chlorate and starch.

From the *Reports*, September 1942.

TOOTHPASTES

BEST BUYS

The following brands of the "Acceptable list were judged to offer the best value for the money. For full details, see listings under "Acceptable."

Milk-i-dent Dental Cream. 5.6-oz. tube, 20¢; cost per oz., 3½¢.

CD. 3.8-oz. tube, 19¢; cost per oz., 5¢.

ACCEPTABLE

(In order of increasing cost per ounce, but see comments)

Milk-i-dent Dental Cream (Trade Laboratories, Inc., Newark, N. J. Sold at Woolworth's). 5.6-oz. tube, 20¢; cost per oz., 3½¢.

Craig-Martin Tooth Paste (Comfort Mfg. Co., Chicago, Ill. Sold at Woolworth's). 5.2-oz. tube, 21¢; cost per oz., 4¢. Contained starch.

CD (Cooperative Distributors, NYC). 3.8-oz. tube, 19¢; cost per oz., 5¢.

McKesson's Magnesia Tooth Paste (McKesson & Robbins, Bridgeport, Conn.). 2½-oz. tube, 2 for 29¢; cost per oz., 6¢.

Macy's Foamy Tooth Paste (R. H. Macy, NYC). 4-oz. tube, 23¢; cost per oz., 6¢.

Macy's Wintergreen (R. H. Macy). 4½-oz. tube, 26¢; cost per oz., 6¢.

Best Tooth Paste (distrib., Whelan Drug Co., NYC). 3½-oz. tube, 20¢; cost per oz., 6¢. Tended to harden on standing.

TMC Tooth Paste (May Dep't Stores, Los Angeles, Calif.): 4½-oz. tube, 23¢; cost per oz., 6½¢.

Phillips' Milk of Magnesia (Chas. H. Phillips Chemical

ACCEPTABLE—CONT'D

Co., NYC). 3.6-oz. tube, 24¢; cost per oz., 6½¢. Contained starch.

Scientific Tooth Paste (distrib., H. S. Kress Co., NYC). 1½-oz. tube, 10¢; cost per oz., 7¢. Tended to harden on standing.

TMC Tooth Paste for Massaging Gums (May Dep't Stores). 4½-oz. tube, 23¢; cost per oz., 7¢. Tended to harden on standing.

Macy's Mint Flavored Tooth Paste (R. H. Macy). 2½-oz. tube, 18¢; cost per oz., 7¢.

Macy's Alkalinating Tooth Paste (R. H. Macy). 3-oz. tube, 21¢; cost per oz., 7¢.

Kleenrite Tooth Paste (Rite Laboratories, Los Angeles, Calif.). 3¼-oz. tube, 33¢; cost per oz., 7¢. Contained starch.

Goldblatt's Bond-Mint Flavored (Goldblatt Bros., Chicago, Ill.). 3½-oz. tube, 23¢; cost per oz., 7¢.

Gimbels Dental Cream (distrib., Gimbel Bros., NYC). 3½-oz. tube, 25¢; cost per oz., 7¢.

Gimbels Tooth Paste (Gimbel Bros.). 3½-oz. tube, 25¢; cost per oz., 7¢.

Triplemint Tooth Paste (Sheffield Co., New London, Conn.). 1¾-oz. tube, 10¢; cost per oz., 7½¢. Tended to harden on standing.

PS Dental Cream Containing Magnesia (distrib., Associated Merchandising Corp.¹). 2½-oz. tube, 19¢; cost per oz., 7½¢. Tended to separate on standing.

ADS Dental Paste (American Druggists Syndicate, Inc., NYC). 2¼-oz. tube, 2 for 33¢; cost per oz., 7½¢.

Dr. West's Tooth Paste (Weco Products Co., Chicago, Ill.). 2-oz. tube, 15¢; cost per oz., 7½¢. Contained starch.

Ward's Mint Tooth Paste Cat. No.—3898 (Montgomery Ward & Co., Chicago, Ill.). 2.6-oz. tube, 21¢; 2 for 39¢; cost per oz., 8¢. Tended to harden on standing.

Mador Milk of Magnesia Tooth Paste (Mador, Inc., Chicago, Ill.). 3-oz. tube, 23¢; cost per oz., 8¢. Weight of contents not stated on package. Contained starch.

Schulte Milk of Magnesia Tooth Paste (A. Schulte, NYC). 3-oz. tube, 25¢; 2 for 45¢; cost per oz., 8¢.

Listerine Tooth Paste (Lambert Pharmaceutical Co., St. Louis,

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

- Mo.**). 4.1-oz. tube, 33¢; cost per oz., 8¢. Tended to separate on standing.
- Macy's Soapless Tooth Paste** (R. H. Macy). 3-oz. tube, 24¢; cost per oz., 8¢. Tended to separate on standing.
- Co-op Tooth Paste** (National Cooperatives, Inc., Chicago, Ill.). 3.2-oz. tube, 25¢; cost per oz., 8¢.
- Hearns Blue Diamond Tooth Paste, Mint Flavor** (Hearns, NYC). 4-oz. tube, 31¢; cost per oz., 8¢.
- Hearns Blue Diamond Tooth Paste** (Hearns). 4-oz. tube, 31¢; cost per oz., 8¢. Tended to separate on standing.
- Ward's Dental Cream** Cat. No.—3899 (Montgomery Ward & Co.). 2½-oz. tube, 21¢; 2 for 39¢; cost per oz., 8½¢.
- Britten** (United Drug Co., Boston). 4½-oz. tube, 39¢; cost per oz., 8½¢.
- Walter's Tooth Paste for Massaging Gums** Cat. No.—4324 (Sears-Roebuck & Co., Chicago, Ill.). 2½-oz. tube, 23¢; cost per oz., 9½¢. Tended to harden on standing.
- Squibb Dental Cream** (E. R. Squibb & Sons, NYC). 5-oz. tube, 49¢; cost per oz., 10¢.
- Schulte Mint Tooth Paste** (A. Schulte). 2½-oz. tube, 25¢; cost per oz., 10¢. Tended to harden on standing.
- De Haven Tooth Paste** (distrib., Pennsylvania Drug Co., NYC). 2¼-oz. tube, 23¢; cost per oz., 10¢. Consistency rather thick at all temperatures.
- The Fair Tooth Paste** (The Fair, Chicago, Ill.). 3¾-oz. tube, 39¢; cost per oz., 10½¢.
- Klenzo Dental Creme** (United Drug Co.). 3½-oz. tube, 39¢; cost per oz., 11¢.
- Forhan's for the Gums** (Forhan's, Div. Zonite Products Corp., New Brunswick, N. J.). 3⅓-oz. tube, 39¢; cost per oz., 12½¢.
- Pepsodent** (Pepsodent Co., Chicago, Ill.). 3-oz. tube, 39¢; cost per oz., 13¢. Tended to separate on standing.
- Regum** (Norwich Pharmacal Co., Norwich, N. Y.). 1¾-oz. tube, 25¢; cost per oz., 14¢. Contained starch.
- Halesworth Tooth Paste** (Hale Bros. Stores, Inc., San Francisco). 2¼-oz. tube, 33¢; cost per oz., 14½¢.
- Ipana Tooth Paste** (Bristol-Myers Co.). 2.6-oz. tube, 39¢; cost per oz., 15¢.
- Kolynos Tooth Paste** (Kolynos 'Co., New Haven, Conn.). 2-oz. tube, 39¢; cost per oz., 19½¢. Tended to separate.

NOT ACCEPTABLE*(In alphabetical order)*

Approved Dental Cream Cat. No.—5746 (Sears-Roebuck & Co.). 5-oz. tube, 33¢; cost per oz., 6½¢. Excessively abrasive. Contained starch.

Bonded Tooth Paste (William A. Webster Co., distrib., Sontag Drug Co.). 4-oz. tube, 27¢; cost per oz., 7¢. Excessively alkaline; variable consistency and abrasiveness.

Boriclor (Borine Mfg. Co.). 2-oz. tube, 39¢; cost per oz., 19½¢. Some separation of liquid at room temperature. Weight not stated. Contained ipecac 3%, potassium chlorate 16%, borine 20%.

Bost Tooth Paste (Bost Tooth Paste Corp.). 2.4-oz. tube, 32¢; cost per oz., 13½¢. Contained starch. Tended to thin out on standing.

Brundage Improved (J. R. Brundage, Inc.). 4.6-oz. tube, 20¢; cost per oz., 4½¢. Separated on standing.

Brytor (distrib., Stineway Drug Stores). 2½-oz. tube, 23¢; cost per oz., 10¢. Variable consistency at room temperature. Tended to liquefy on standing.

Castilla Tooth Soap (Castilla Products, Inc.). 1¾-oz. tube, 35¢; cost per oz., 25¢. Excessively alkaline.

Charcoal Tooth Paste (Morin Co.). 1-oz. tube, 10¢; cost per oz., 10¢. Contained starch. See text for objection to charcoal.

Colgate Ribbon Dental Cream (Colgate-Palmolive-Peet). 3¾-oz. tube, 37¢; cost per oz., 10¢. Became quite liquid on standing. Excessively abrasive. Contained starch.

Dan-O No. 33 Formula Tooth Paste (Daniel Distributing Co.). 3.8-oz. tube, 23¢; cost per oz., 6¢. Tubes tested leaked. Liquid separated. Contained starch.

Detoxol Tooth Paste (Merrell Co.). 3¼-oz. tube, 39¢; cost per oz., 12¢. Consistency at room temperature unsatisfactory —very thin.

Gilbert's PMG Tooth Paste (Gilbert Laboratories). 3-oz. tube, 39¢; cost per oz., 13¢. Tubes tested leaked. Strong, unpleasant odor. Tended to liquefy on standing. Excessively abrasive.

Iodent No. 1 (Iodent Chemical Co.). 3¾-oz. tube, 37¢; cost per oz., 10½¢. Tended to liquefy on standing. Excessively abrasive.

Iodent No. 2 "For Teeth Hard to Bryten" (Iodent Chem-

NOT ACCEPTABLE—CONT'D

ical Co.). 3½-oz. tube, 37¢; cost per oz., 10½¢. Tended to liquefy on standing. Excessively abrasive.

Mi31 Tooth Paste (United Drug Co.). 5¼-oz. tube, 50¢; cost per oz., 9½¢. Excessively abrasive.

Oraline Tooth Paste (S. S. White Dental Mfg. Co.). 2-oz. tube, 25¢; cost per oz., 12½¢. Consistency at room temperature too thin. Tended to liquefy on standing.

PS for Massaging Gums (Associated Merchandising Corp.)¹. 2¼-oz. tube, 19¢; cost per oz., 8½¢—in the East; in the West—25¢; cost per oz., 11¢. Tended to harden on standing.

PS Mint Flavored Tooth Paste (Associated Merchandising Corp.)¹. 2¾-oz. tube, 19¢; cost per oz., 7¢. Contained starch. Tended to harden on standing.

Pebeco Regular Tooth Paste (Lehn & Fink Products Corp.). 3¼-oz. tube, 39¢; cost per oz., 12¢. Contained potassium chlorate. Tended to harden on standing.

Rexall Milk of Magnesia with Precipitated Chalk (United Drug Co.). 3¾-oz. tube, 33¢; cost per oz., 9¢. Excessively abrasive.

Sanikleen with Milk of Magnesia (Sanikleen Products Co.). 5-oz. tube, 20¢; cost per oz., 4¢. Consistency at room temperature too thin. Excessively abrasive.

Spearmint Tooth Paste (Wrigley Pharmaceutical Co.). 2-oz. tube, 10¢; cost per oz., 5¢. Excessively abrasive.

S.T. 37 (Sharp & Dohme). 1¾-oz. tube, 25¢; cost per oz., 14½¢. Contained hexylresorcinol, antiseptic known to cause irritation. Tended to separate on standing.

Walgreen's Magnesia Tooth Paste (Walgreen & Co.). 2½-oz. tube, 2 for 29¢; cost per oz., 6¢. Liquid separated at room temperature.

Worcester Salt Tooth Paste (Worcester Salt Co.). 3-oz. tube, 39¢; cost per oz., 13¢. Tended to separate on standing.

TOOTH POWDERS**BEST BUYS**

The following brands are judged to offer the best value for the money. For full details, see listings under "Acceptable."

Ward's. 7-oz. can, 24¢; cost per oz., 3½¢.

Co-op. 6-oz. can, 27¢; cost per oz., 4½¢.

¹ For a list of AMC stores, see page 12.

ACCEPTABLE*(In order of increasing cost per ounce)*

Ward's Cat. No.—4328 (Montgomery Ward & Co., Chicago, Ill.). 7-oz. can, 24¢; cost per oz., 3½¢.

Dr. Lyon's Tooth Powder (R. L. Watkins Co., NYC). 16-oz. can ranged in price from 51¢ to \$1.50; cost per oz., 3¢ to 9¢.

Labratest (Labratest, Inc.; distrib., Bloomingdale's, NYC). 16-oz. can, 44¢; cost per oz., 2¾¢; 6-oz. can, 18¢; cost per oz., 3¢.

Macy's (R. H. Macy & Co., NYC). 8-oz. can, 29¢; cost per oz., 3½¢.

Co-op (Stevens-Wiley Mfg. Co., Inc., Phila.; distrib., Eastern Cooperative Wholesale, Bklyn, NY). 6-oz. can, 27¢; cost per oz., 4½¢.

Gimbel's (Gimbel Bros., NYC). 4 oz., 19¢; cost per oz., 5¢.

CD (saccharine) (Cooperative Distributors, NYC). 4½-oz. can, 22¢; cost per oz., 5¢.

Craig-Martin (Comfort Mfg. Co., Chicago, Ill. Sold at Woolworth's). 2-oz. can, 10¢; cost per oz., 5¢.

Sanikleen (Sanikleen Products Co., Memphis, Tenn.). 2-oz. can, 10¢; cost per oz., 5¢.

Williams (J. B. Williams Co., Glastonbury, Conn.). 2-oz. can, 10¢; cost per oz., 5¢.

Orrins (C. J. Graver & Co., Cleveland, Ohio). 16-oz. can, 89¢; cost per oz., 5½¢. 4-oz. can, 29¢; cost per oz., 7½¢.

Hearns Blue Diamond (Hearns, NYC). 8-oz. can, 47¢; cost per oz., 6¢.

TMC (May Dep't Stores, St. Louis, Mo.). 8-oz. can, 49¢; cost per oz., 6¢.

Britten (United Drug Co., St. Louis, Mo.). 6-oz. can, 39¢; cost per oz., 6½¢.

Pebeco (Lehn & Fink Products Corp., Bloomfield, N. J.). 3½-oz. can, 25¢; cost per oz., 7¢.

Phillips' Milk of Magnesia (Charles H. Phillips Chemical Co., NYC). 2¾-oz. can, 19¢; cost per oz., 7¢.

Rexall Pearl (United Drug Co.). 3½-oz. can, 25¢; cost per oz., 7¢.

Halesworth (Hale Bros., San Francisco). 4¼-oz. can, 2 for 65¢; cost per oz., 7½¢.

Colgate (Colgate-Palmolive-Peet, Jersey City, N. J.). 4-oz. can, 37¢; cost per oz., 9¢.

(Continued next page)

ACCEPTABLE—CONT'D

- Squibb** (E. R. Squibb & Sons, NYC). 2½-oz. can, 23¢; cost per oz., 9¢.
- Pepsodent** (Pepsodent Co., Chicago, Ill.). 4½-oz. can, 39¢; cost per oz., 9½¢.
- Lactisal Soluble Tooth Powder** (Wright & Lawrence, Inc., Chicago, Ill.). 5-oz. can, 50¢; cost per oz., 10¢. Somewhat lumpy.
- Listerine** (Lambert Pharmacal Co., St. Louis, Mo.). 2¼-oz. can, 23¢; cost per oz., 10¢.
- Kolynos** (Kolynos Co., New Haven, Conn.). 4-oz. can, 39¢; cost per oz., 10¢; 2-oz. can, 21¢; cost per oz., 10½¢.
- Pro-phy-lac-tic** (Pro-phy-lac-tic Brush Co., Florence, Mass.). 2¼-oz. can, 25¢; cost per oz., 11¢.
- Pycopé** (Pycopé, Inc., Jersey City, N. J.). 6¼-oz. can, 89¢; cost per oz., 14¢.
- Detoxol** (Merrell, Inc., Cincinnati, Ohio). 2.3-oz. can, 33¢; cost per oz., 14½¢.
- Forhan's** (Forhan's, Div. Zonite Products Corp., New Brunswick, N. J.). 10¢ size contained a little more than ½ oz. No weight stated. Cost per oz., about 18¢.
- Revelation** (August E. Drucker Co., San Francisco). 2¾-oz. can, 50¢; cost per oz., 21¢.

NOT ACCEPTABLE

(In alphabetical order)

- Albodon** (Wm. R. Warner & Co.). 4-oz. can, 59¢; cost per oz., 15¢. Contained sodium perborate.
- Approved** (Sears-Roebuck Co.). Cat. No. 5750. 3½-oz. can, 23¢; cost per oz., 6½¢. Excessively alkaline.
- Calox** (McKesson & Robbins, Inc.). 12-oz. can, \$1.25; cost per oz., 10½¢. Contained perborate or oxygen-liberating compound.
- Caroid** (American Ferment Co., Inc.). 2-oz. can, 48¢; cost per oz., 24¢. Excessively abrasive.
- CD (salt)** (Cooperative Distributors). 4½-oz. can, 22¢; cost per oz., 5¢. Excessively abrasive.
- Goldblatt's Bond** (Goldblatt Bros.). 2-oz. can, 2 for 19¢; 4 for 39¢; cost per oz., 5¢. Excessively abrasive.
- Mi31** (United Drug Co.). 3½-oz. can, 29¢; cost per oz., 8½¢. Contained sodium perborate.
- Mil-ox** (American Pharmaceutical Co., Inc.). 4-oz. can, 29¢;

NOT ACCEPTABLE—CONT'D

cost per oz., 7¢. Was found to contain sodium perborate. *Orlis* (Valentine Laboratories, Inc.). 3½-oz. can, 39¢; cost per oz., 11¢. Excessively abrasive. 11-oz. size contained sodium perborate.

PS (Associated Merchandising Corp.¹). 4½-oz. can, 17¢; cost per oz., 4¢. Contained perborate or similar oxygen-liberating substance.

Pyrozide (National Dental Co.). 4-oz. can, \$1; cost per oz., 25¢. Strong medicinal odor. Contained cresol.

Rexall Milk of Magnesia (United Drug Co.). 3½-oz. can, 29¢; cost per oz., 8½¢. Contained sodium perborate.

Sodium Perborate (Flavored) (Laxseed Co., Inc.). 1¾-oz. can, 10¢; cost per oz., 6¢. Similar to *Vince* below; not to be used as a regular dentifrice.

Vince (Vince Laboratories, Inc.). 1 lb. can, \$1.69; cost per oz., 10½¢. 96% sodium perborate; not to be used as a regular dentifrice.

Walgreen's Magnesia (Walgreen Co.). 5½-oz. can, 37¢; cost per oz., 6½¢. Contained perborate or similar oxygen-liberating compound.

Zincora (Park Laboratories). 4½-oz. can, 35¢; cost per oz., 8¢. Contained perborate or oxygen-liberating compound.

LIQUID DENTIFRICES

ACCEPTABLE

(In order of increasing cost per fluid ounce, but note comments in text above)

Craig-Martin Full Foam (Comfort Mfg. Co., Chicago). 2-oz. bottle, 10¢; cost per oz., 5¢.

Sanikleen (Sanikleen Products Co., Memphis, Tenn.). 2-oz. bottle, 10¢; cost per oz., 5¢.

Bonded Original Liquid Dental Cream (Wm. A. Webster Co., Memphis, Tenn.). 2-oz. bottle, 12¢; cost per oz., 6¢. 4-oz. bottle, 29¢; cost per oz., 7¢.

Kleenrite (Rite Laboratories, Los Angeles). 4-oz. bottle, 19¢; cost per oz., 5¢. 2-oz. bottle, 12¢; cost per oz., 6¢. Tended to separate on standing.

Macy's (Macy, NYC). 2-oz. bottle, 19¢; cost per oz., 9½¢.

¹ For a list of AMC stores, see page 12.

(Continued next page)

ACCEPTABLE—CONT'D

Cue (Colgate-Palmolive-Peet, Jersey City, N. J.). 3-oz. bottle, 39¢; cost per oz., 13¢.

Pepsodent (Pepsodent Co., Chicago). 3-oz. bottle, 39¢; cost per oz., 13¢.

Teel (Procter & Gamble, Cincinnati). 3-oz. bottle, 39¢; cost per oz., 13¢.

NOT ACCEPTABLE

(*In alphabetical order*)

Gleem (Oxford Products, Inc.). 4-oz. bottle, 39¢; cost per oz., 10¢. 2-oz. bottle, 23¢; cost per oz., 11½¢. Contains sediment of phosphates and amorphous matter. Excessive acid.

Lyncrest (W. T. Grant). 6-oz. bottle, 23¢; cost per oz., 4¢. 2-oz. bottle, 10¢; cost per oz., 5¢. Formed solid gel on standing.

Vray (Weco Products Co.). 6-oz. avoirdupois bottle, 39¢; cost per oz., 6½¢. Contained 3½ fluid oz.; cost per fluid oz., 11½¢. Contained starch. Separated into solid and liquid portions which are hard to mix.

DEODORANTS AND ANTI-PERSPIRANTS

Deodorants are preparations which prevent odors. Simple anti-perspirants do not remove odors already present, but check perspiration, thereby preventing further formation of perspiration odors. Some products combine the two functions.

Aluminum chloride is the most effective and, for most people, the safest anti-perspirant. It is the active ingredient of practically all liquid preparations and many creams. It should be applied only when essential, not too frequently, and never to raw or broken skin surfaces or on cuts, pimples or irritations. The area on which it has been used should be washed and dried before clothes are put on, to prevent harm to the fabric. Liquids are preferable to creams containing aluminum chloride, because creams require prolonged contact to be effective. This precludes the possibility of removing excess aluminum chloride, and clothing is apt to be damaged.

Liquids which also contain ferric chloride (easily recognized by their reddish-brown color) should not be used, because they tend to stain the skin.

The "Best Buy" for those who must use an anti-perspirant is a solution of aluminum chloride, which can be bought at the drugstore. A 10%-15% solution is usually satisfactory; stronger solutions are apt to be irritating.

As a deodorant, CU recommends powdered boric acid (which may be mixed with a small quantity of perfumed talcum powder if desired) or a solution of baking soda (bicarbonate of soda). Two or three teaspoons of baking soda in 8 ounces of warm water make a satisfactory solution.

From the *Reports*, March 1940.

DEPILATORIES

The only safe way to remove superfluous hair permanently is by electrolysis—destroying hair roots one by one with an electric needle. It should be done only by an expert operator and is expensive, tedious and rather painful. The single needle method involves less danger of scarring than the multiple needle method. Diathermy (high frequency current) treatment is considered less satisfactory than skillfully performed electrolysis.

Never use X-ray for removal of hair. Special "systems" for permanent hair removal may be disguised X-ray treatments; beware of them.

Hair may be removed temporarily by mechanical or chemical methods. Both can involve some danger. The easiest and safest means of temporary removal is by shaving. Contrary to popular belief, shaving does not make hair coarser or increase its rate of growth.

Such mechanical methods of depilation as tweezing (pulling hairs out one by one) or wax (using a wax covering to pull out a mass of hairs) may cause infection unless the instruments and the area to be treated are thoroughly cleansed. Rubbing off the hair with an abrasive (pumice stone or emery pads) is tedious and may irritate or infect the skin. All these methods are painful.

Most chemical depilatories contain an alkaline sulfide which dissolves the hair, but also irritates the skin. They should therefore be used with the utmost caution, and never on the armpits, face or broken skin. If they come in contact with the eyes, blindness may result. Sulfide preparations have a characteristic "rotten-egg" odor. Sulfide creams are better than the too alkaline, unstable liquid sulfides.

(Continued next page)

Thioglycolate creams are milder than the sulfides in action and odor, but they, too, should be used with extreme care.

If you use a chemical depilatory, always observe these precautions:

1. When opening or squeezing the container, hold it away from your eyes.
2. Test the depilatory on a small area of skin before you apply it extensively. If rash or itchiness develops during the time required to remove hair, don't use the preparation.
3. If it has no ill effects, apply the depilatory in about a one-eighth inch layer, using only wood applicators. Don't allow the paste to dry on the skin; keep it moistened with water if necessary.
4. A depilatory should act in two to eight minutes. Never allow it to remain on the skin more than ten minutes.

Instead of removing hair, you can render it inconspicuous by bleaching. An ounce of fresh double-strength hydrogen peroxide (6%) plus a few drops of household ammonia make a good bleach.

In the ratings, the types of depilatories are listed in order of quality without regard to price. *But remember that the depilatories are "Acceptable" only if used with proper precautionary measures.*

From the *Reports*, October 1941.

ACCEPTABLE

(In order of quality without regard to price)

• THIOGLYCOLATE CREAMS

Imra (Artra Cosmetics, Inc., NYC). 65¢; cost per oz., 26¢.
Sleek (Elizabeth Arden, NYC). 60¢; cost per oz., 27¢.

Nair (Carter Products, Inc., NYC). 39¢; cost per oz., 20¢.
Wisk (Sales Affiliates, Inc., NYC). 61¢; cost per oz., 24¢.

• SULFIDE CREAMS OR PASTES

(In order of quality without regard to price)

Zip (Madame Berthé, NYC). 23¢; cost per oz., 6¢.

DeWans (Associated Distributors, Inc., Chicago). 87¢; cost per oz., 22¢.

Neet (Affiliated Products, Inc., Jersey City, N. J.). Large size, 49¢; cost per oz., 20¢. Small size, 10¢; cost per oz., 25¢.

Del-A-Tone (The Delatone Co., Newark, N. J.). 31¢; cost per oz., 7¢. Stated net weight found to be short.

ACCEPTABLE—CONT'D**• SULFIDE POWDERS***(In order of quality without regard to price)***"4711"** (Ferd. Mulhens, Inc., NYC). 85¢; cost per oz., 53¢.**Del-A-Tone** (The Delatone Co., Newark, N. J.). 59¢; cost per oz., 59¢.**Zip** (Madame Berthé), 39¢; cost per oz., 31¢.**Dewans** (Associated Distributors, Inc., Chicago). 52¢; cost per oz., 26¢.**Snow** (Artnell Scientific Brands, NYC). 39¢; cost per oz., 8¢.**• ABRASIVES***(In order of increasing cost)***Beauty Maid Pad** (manufacturer not stated). 10¢ a pad.**E-Z Pad** (Platinum Laboratories, NYC). 10¢ a pad.**Baby Touch Pad** (Baby Touch Hair Remover Co., St. Louis). 33¢ a pad.**Lechler's Velvet-Stohn** (Lechler Laboratories, NYC). \$1 a cake. Pumice stone.**Bellin's Wonderstoen** (Bellin's Wonderstoen Co., NYC). \$1.25 a cake. Pumice stone.**• WAXES***(In order of increasing cost per ounce)***Facile** (Facile Cosmetics, Ltd., NYC). \$1.50 for 11-oz. jar. Cream wax.**Zip** (Madam Berthé, NYC). 54¢ for 3½-oz. cake. Hard wax.**Magic** (Helena Rubinstein, NYC). \$2.50 a kit. Refills available at \$1.25 for 4-oz. wax. Hard wax.**Electra** (Elizabeth Arden, NYC). \$2.50 a kit. Refills available at \$2 for 5-oz. wax. Hard wax.**Dawson's** (Granwell Sales Co., NYC). 96¢ for 2-oz. jar. Cream wax.**Phelactine** (Dearborn Supply Co., Chicago). 89¢ for ½-oz. stick. Hard wax.**NOT ACCEPTABLE****• LIQUID SULFIDES****De Miracle** (Consolidated Drug Trade Products). 51¢; cost per oz., 51¢.*(Continued next page)*

NOT ACCEPTABLE—CONT'D

Zip Lotion (Madam Berthé). Large size, 33¢; cost per oz., 17¢. Small size, 10¢; cost per oz., 20¢.

Although suitable for use with proper precaution, the following are not recommended because they contained poisonous barium salts:

• SULFIDE CREAMS OR PASTES

Evans' (George B. Evans Laboratories). 49¢; cost per oz., 9¢.

Odo-ro-no (The Odo-ro-no Co.). 49¢; cost per oz., 9¢.

X-Basin (Hall & Ruckel, Inc.). Large size, 27¢; cost per oz., 8¢. Stated net weight found to be short. Small size, 10¢; cost per oz., 20¢.

• SULFIDE POWDERS

Biff (E. Burnham Laboratories). 75¢; cost per oz., 30¢.

Bonney (Bonney, Inc.). 60¢; cost per oz., 37¢.

Colonial Dames (Colonial Dames, Inc.). 50¢; cost per oz., 40¢.

Evans' (George B. Evans Laboratories). 69¢; cost per oz., 61¢.

Gordon's Ex-Hair (Gordon & Gordon). 75¢; cost per oz., 75¢.

Tidy (Carrel Distributors). 49¢; cost per oz., 25¢.

X-Basin (Hall & Ruckel, Inc.). 41¢; cost per oz., 34¢.

EYE MAKE-UP

No dye should ever be used on the eyelashes or eyebrows. Loss of sight and even death has been caused by a liquid eyelash preparation containing an aniline dye. Despite the fact that the manufacture and sale of eyelash dyes have been outlawed by the Food and Drug Act, some beauty parlors still continue to dye the lashes of patrons.

Mascara and eyebrow pencils are relatively safe, although even these may cause irritation.

Much of the mascara sold is made in a soapy base. Avoid getting it into the eyes, as unpleasant irritation will result. It is sold in cake, cream and liquid forms; the choice is mainly one of personal preference. Eyebrow pencils are usually harmless, consisting of finely divided carbon in a wax-and-mineral oil base.

FACE POWDER

Face powder is intended to remove shine from the face, cover minor blemishes, lend a flattering tint to the complexion, and give off a faint but pleasing perfume. It must be easy to apply uniformly (i.e., the powder must have "slip"), the color must be blended well, the powder must adhere to the skin reasonably long, and it must have good covering power.

Some changes may have to be made in face powder formulas, because a few of the usual ingredients are strategic war materials. But chances are that the change will hardly be noticed; CU has tested a number of face powders with widely differing formulas, and noted little difference in performance.

Powders containing starch are "Not Acceptable." Starch forms a sticky paste when wet, which may serve as a breeding ground for bacteria; it clings to hair and may make downy hair visible; it tends to dry the skin; and some persons are allergic to it.

It's good business to check the weights of different sizes when you buy face powder. The government requires the weight to be stated on the label. CU found many brands where one size cost much less per ounce than another (sometimes the smaller size was the cheaper).

Wherever possible, Rachel was the color tested, but there is no uniformity among manufacturers in naming shades. Only personal experiment can determine your best shade.

Samples were examined for adherence and covering power, presence of sharp particles (which may irritate the skin), presence of starch and distribution of coloring matter. The ratings also include the opinion of CU's expert concerning perfume quality. The "Acceptable" powders are listed in order of increasing cost, since differences in quality were slight. The 10% Federal Excise Tax is not included in cost per box (unless otherwise noted) or in cost per ounce in the ratings.

From the *Reports*, October 1942.

ACCEPTABLE

(In order of increasing cost per ounce. Where cost per ounce differs for two sizes of the same brand, the lower price determines the brand's position in the ratings. Those at the top of the list are "Best Buys")

Irresistible (Irresistible, Jersey City, N. J.). "Rachel." 1½ oz. box, 10¢; cost per oz., 7¢. Fair quality and perfume.

(Continued next page)

ACCEPTABLE—CONT'D

Elizabeth Post (Elizabeth Post, NYC). "Rachel." 1½ oz. box, 10¢; cost per oz., 8¢. Fair quality and perfume.

Outdoor Girl (Affiliated Products, Inc., Jersey City). "Palm Beach-Rachelle." 1-1/6 oz. box, 10¢; cost per oz., 9¢. "Deep Rachelle." Approx. 2.5 oz. box, 25¢; cost per oz., 10¢. Good quality and perfume for "Palm Beach-Rachelle," but sharp particles were present. Fair quality and poor perfume for "Deep Rachelle."

Embassy (Embassy Ltd., NYC). "Rachelle." 1⅓ oz. box, 20¢; cost per oz., 11¢. Relatively low quality; good perfume.

Elizabeth Kent (Elizabeth Kent, Inc., NYC). "Rachel." ¾ oz. box, 10¢; cost per oz., 11¢. Fair quality and perfume.

Ward's (Montgomery Ward & Co., Inc., Chicago). "Rachel I." Cat. No. 1360: 3 oz. box, 42¢; cost per oz., 14¢; Cat. No. 1650: 2/3 oz. box, 11¢; cost per oz., 17¢. Fair quality; poor perfume.

Cashmere Bouquet (Colgate-Palmolive-Peet Co., Jersey City). "Rachel No. 1." 1½ oz. box, 25¢; cost per oz., 14¢. 11/16 oz. box, 10¢; cost per oz., 14¢. Good quality and perfume.

CD (Cooperative Distributors, Inc., NYC). "Rachel No. 2." 3 oz. box, 45¢; cost per oz., 15¢. Good quality; poor perfume.

House of Westmore (House of Westmore, Hollywood). "Rachelle." 2¾ oz. box, 50¢; cost per oz., 18¢. 1¼ oz. box, 25¢; cost per oz., 20¢. Good quality; fair perfume.

Hampden (Hampden, NYC). "Rachelle." 2¾ oz. box, 52¢; cost per oz., 19¢; "Eggshell." 0.45 oz. box, 10¢; cost per oz., 22¢. Relatively low quality; poor perfume.

Three Flowers (Richard Hudnut, NYC). "Brunette (Rachelle No. 1)." 4 oz. box, 75¢; cost per oz., 19¢. Good quality; fair perfume.

Armand (Armand Co., Des Moines, Iowa). "Brunette." Approx. 2½ oz. box, 50¢; cost per oz., 20¢. Approx. 2¼ oz. box, 50¢; cost per oz., 22¢. Fair quality and perfume.

L'Adonna (Carrel, Ltd., Chicago). "Rachel." 2½ oz. box, 50¢; cost per oz., 20¢. Fair quality and perfume.

Lady Esther (Lady Esther, Ltd., Chicago). "Rachel." 2-7/10 oz. box, 55¢; cost per oz., 20¢. 1/3 oz. box, 10¢; cost per oz., 30¢. Good quality; fair perfume.

Mary Scott Rowland (Mary Scott Rowland, Ltd., NYC). "Mayfair." Approx. 1.27 oz. box, 25¢; cost per oz., 20¢. "Coventry." Approx. 3.53 oz. box, 75¢; cost per oz., 21¢.

ACCEPTABLE—CONT'D

- Fair quality; poor perfume. "Mayfair" had many particles with sharp edges; color of "Coventry" was poorly distributed.
- Edna Wallace Hopper's** (Affiliated Products, Inc.). "Rachel." $\frac{1}{2}$ oz. box, 10¢; cost per oz., 20¢. Fair quality and perfume. Not to be confused with *Edna Wallace Hopper's* "Super-cling" which contained starch.
- Woodbury** (John H. Woodbury, Inc., Cincinnati, Ohio). "Rachel." $\frac{1}{2}$ oz. box, 10¢; cost per oz., 20¢. $2\frac{1}{2}$ oz. box, 50¢; cost per oz., 20¢. Good quality; fair perfume.
- Colonial Dames** (Colonial Dames Co., Ltd., Hollywood). "Rachel." $4\frac{1}{2}$ oz. box, \$1.00; cost per oz., 22¢. Good quality; fair perfume.
- Java** (Bourjois, NYC). "Rachel." $2\frac{3}{4}$ oz. box, 60¢; cost per oz., 22¢. Fair quality and perfume.
- Luxor** (Luxor, Ltd., Chicago). "Ivory Rachel." $2\frac{1}{4}$ oz. box, 49¢; cost per oz., 22¢. Fair quality and perfume.
- Marvelous** (Richard Hudnut). "Rachel No. 1." $2\frac{1}{2}$ oz. box, 55¢; cost per oz., 22¢. $1/3$ oz. box, 10¢; cost per oz., 30¢. Fair quality and perfume.
- Park & Tilford** (Park & Tilford, NYC). "Light Rachel." 0.42 oz. box, 10¢; cost per oz., 24¢. Fair quality and perfume.
- Tayton's** (Tayton Co., Hollywood). "Rachel." 0.42 oz. box, 10¢; cost per oz., 24¢. Good quality; poor perfume.
- Lady Marlow** (Lady Marlow Co., Hollywood). "Rachelle No. 1." 3 oz. box, 79¢; cost per oz., 26¢. Good quality; fair perfume.
- Princess Pat** (Princess Pat, Ltd., Chicago). "Rose Cameo." 0.38 oz. box, 10¢; cost per oz., 26¢. "Flesh." Approx. 3 oz. box, \$1.00; cost per oz., 33¢. Good quality; poor perfume. "Flesh" had many sharp edged particles.
- Pond's** (Pond's Extract Co., NYC). "Rachel." 2.1 oz. box, 55¢; cost per oz. 26¢. 0.35 oz. box, 10¢; cost per oz., 29¢. Good quality; fair perfume.
- Jergens** (Andrew Jergens Co., Cincinnati). "Rachel." $3\frac{3}{4}$ oz. box, \$1.00; cost per oz., 27¢. $1/3$ oz. box, 10¢; cost per oz., 30¢. Good quality; fair perfume.
- Gemey** (Richard Hudnut). "Brunette (Rachel No. 1)." $3\frac{3}{4}$ oz. box, \$1.00; cost per oz., 27¢. Good quality and perfume.
- Max Factor's** (Max Factor, Hollywood). "Rachelle." 105 gram (3.74 oz.) box, \$1.00; cost per oz., 27¢. "Natural." 0.24 oz., 10¢; cost per oz., 42¢. Good quality and perfume.

(Continued next page)

ACCEPTABLE—CONT'D

- April Showers** (Cheramy, NYC). "Rachel." 2 oz. box, 55¢; cost per oz., 28¢. 1/3 oz. box, 10¢; cost per oz., 30¢. Good quality; fair perfume. Color poorly distributed.
- Chiffon** (Primrose House, NYC). "Natural." 0.35 oz. box, 10¢; cost per oz., 29¢. "Beige." 2.82 oz. box, \$1.00; cost per oz., 35¢. Fair quality and perfume.
- Louise Andre** (Associated Merchandising Corp.¹, NYC). "Dresden (Rachel No. 1)." 3-1/3 oz. box, \$1.00; cost per oz., 30¢. Good quality; fair perfume.
- Luxuria** (Harriet Hubbard Ayer, NYC). "Rachel." 3.58 oz. box, \$1.10; cost per oz., 31¢. Fair quality and perfume.
- Marcelle** (Marcelle Cosmetics, Chicago). "Rose Rachelle." 1 1/4 oz. box, 55¢; cost per oz., 31¢. Good quality; fair perfume.
- Pompeian** (Pompeian Corp., Baltimore). "Rachel No. 1." 1 1/4 oz. box, 55¢; cost per oz., 31¢. Good quality; fair perfume.
- Don Juan** (Don Juan, Inc., NYC). "Rachel 1." 1/3 oz. box, 10¢; cost per oz., 30¢. Good quality and perfume.
- Leon Laraine** (Leon Laraine, Chicago). "Rachel No. 2." 3 oz. box, \$1.00; cost per oz., 33¢. Good quality and perfume.
- Mello-Glo** (Mello-Glo Co., Inc., Boston). "Rachel." 0.3 oz. box, 10¢; cost per oz., 33¢. Good quality; poor perfume.
- Ralo** (Elmo Sales Corp., Philadelphia). "Brunette." 3 oz. box, \$1.00; cost per oz., 33¢. Good quality; fair perfume.
- Tangee** (George W. Luft Co., NYC). "Rachel." 3 oz. box, \$1.00; cost per oz., 33¢. 0.27 oz. box, 10¢; cost per oz., 37¢. Good quality; poor perfume.
- Harriet Hubbard Ayer** (Harriet Hubbard Ayer, Inc.). "French Rachel." 1.59 oz. box, 55¢; cost per oz., 35¢. Comparatively low quality; poor perfume. Many sharp particles.
- Louis Phillippe** (Affiliated Products, Inc.). "414 Rachelle No. 1." 2 3/4 oz. box, 97¢; cost per oz., 35¢. Good quality; fair perfume.
- Daggett and Ramsdell** (Daggett & Ramsdell, NYC). "Rachel." 2 3/4 oz. box, \$1.00; cost per oz., 36¢; 0.28 oz. box, 10¢; cost per oz., 36¢. Good quality; fair perfume.
- Drezma** (Drezma, Inc., NYC). "Deep Rachael." 0.28 oz. box, 10¢; cost per oz., 36¢. "Champagne Beige." 1 oz. box, \$1.00;

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

- cost per oz., \$1.00. Fair quality; good quality perfume.
- Coty** (G. W. Button Co., NYC). "L'Origan Rachel No. 1." 2.64 oz. box, \$1.00; cost per oz., 38¢; 1/5 oz. box, 10¢; cost per oz., 50¢. Good quality and perfume.
- America** (Marshall Field & Co., Chicago). "Rachel." 2½ oz. box, \$1.00; cost per oz., 40¢. Good quality; fair perfume.
- Early American Old Spice** (Shulton Inc., Hoboken, N. J.). "Honeycomb." 2½ oz. box, \$1.00; cost per oz., 40¢. Good quality; fair perfume.
- Nosegay** (Dorothy Gray, Ltd., NYC). "Glo-Rachel." 5 oz. box, \$2.00; cost per oz., 40¢. Good quality and perfume.
- Skylark** (Barbara Gould, NYC). "Rose Indian." 2½ oz. box, \$1.00; cost per oz., 40¢. Good quality; fair perfume.
- Barbara Gould** (Barbara Gould, Ltd.). "Rachel No. 1." Approx. 2.35 oz. box, \$1.00; cost per oz., 43¢. Comparatively low quality; poor perfume. Sharp particles present.
- Evening in Paris** (Bourjois). "Rachel." 0.23 oz. box, 10¢; cost per oz., 44¢. Approx. 2 oz. box, \$1.00; cost per oz., 50¢. Good quality; fair perfume.
- Almay** (Almay Pharmaceutical Corp., NYC). "Light Rachel." 2¼ oz. box, \$1.10; cost per oz., 49¢. Good quality; fair perfume.
- Yardley** (Yardley, NYC). "Deep Rachel." 2¼ oz. box, \$1.10; cost per oz., 49¢. Good quality; fair perfume.
- Fay's Alluring** (Fay's Cosmetics, NYC). "Rachelle Special." ½ oz. box, 25¢; cost per oz., 50¢. Good quality; poor perfume.
- Helena Rubinstein** (Helena Rubinstein, Inc., NYC). "Peach-bloom." 2 oz. box, \$1.00; cost per oz., 50¢. Fair quality; good perfume.
- Tweed** (Letheric, NYC). "Rachel." 2 oz. box, \$1.00; cost per oz., 50¢. Good quality and perfume.
- Houbigant** (Houbigant, NYC). "Rachel No. 1." 1 oz. box, 55¢; cost per oz., 55¢. Fair quality; good perfume. Many sharp particles present.
- Duvetyn** (Lucien Lelong, NYC). "Rachel Fonce Aureate 'B'." Approx. 1.95 oz. box, \$1.50; cost per oz., 77¢. Good quality; fair perfume.
- Charles of the Ritz** (Charles of the Ritz, NYC). (Color not stated.) 1 oz. box, \$1.00; cost per oz., \$1.00. Good quality and perfume.
- Jacqueline Cochran** (Jacqueline Cochran, Roselle, N. J.).

(Continued next page)

ACCEPTABLE—CONT'D

"Naturel." 2 oz. box, \$1.75; cost per oz., 88¢. Good quality and perfume. Many sharp particles.

Guerlain (Guerlain, Paris). "Shalimar Rachel." 1½ oz. box, \$1.50; cost per oz., \$1.00. Fair quality and perfume.

NOT ACCEPTABLE

The following were "Not Acceptable" because they were found to contain starch. See comment in text.

Adrienne (Loric, Inc.). "Rachelle Olive." 3¼ oz. box, 35¢; cost per oz., 17¢.

Ann Barton (Sears-Roebuck & Co.). "Ivory Satin Rachelle No. 1." Cat. No. 900. 3 oz. box, 39¢¹; cost per oz., 13¢.

Betty Lou Gardenia (F. W. Woolworth Co.). "Brunette" 2/3 oz. box, 10¢; cost per oz., 15¢.

Cara Nome (Langlois, Inc.). "Light Rachelle." ½ oz. box, 25¢; cost per oz., 50¢; 1¼ oz. box, \$1.00; cost per oz., 57¢.

Djer-Kiss (Alfred H. Smith Co.). "Naturelle" 1½ oz. box, 50¢; cost per oz., 31¢.

Edna Wallace Hopper's Super-cling (Affiliated Products Co.). "Rachel." 2½ oz. box, 65¢¹; cost per oz., 26¢. (Not to be confused with *Edna Wallace Hopper's* ½ oz. box, listed as "Acceptable," which does not contain starch.)

Elizabeth Arden (Elizabeth Arden). "Rachel." 2-15/16 oz. box, \$1.75; cost per oz., 60¢. Many sharp particles present.

Macy's (Macy's). "Cinnamon." ½ oz. box, 9¢; cost per oz., 18¢. "Rachel." 4 oz. box, 74¢; cost per oz., 19¢.

Poudre de Riz (Roger & Gallet). (Color not stated.) 3 oz. box, 35¢; cost per oz., 12¢.

Prince Matchabelli (Prince Matchabelli). "Light Rachel" 4½ oz. box, \$1.50; cost per oz., 33¢.

Vita Ray (Vita Ray Corp.). "Mirage Medium Rachel." 3½ oz. box, \$1.00; cost per oz., 29¢.

FOOT POWDERS

Foot powders are useful for preventing chafing from shoe friction and for absorbing perspiration. But talc or boric acid or a combination of the two serves as well and costs less than special brands of foot powder.

Permanent relief of aching feet, blisters, "Athlete's Foot"

¹ 10% Federal Excise Tax included.

and the like lies in diagnosis of the cause, and competent medical treatment, rather than in use of foot powders, though their drying effect may be of temporary help. Massage and bathing in warm water will help to relieve the discomfort of tired feet.

Powders containing an astringent can be used for cases of excessive perspiration, but a 15% solution of aluminum chloride will be more effective and probably cheaper. When aluminum chloride solution is used, it should be washed off before putting on stockings. The feet should then be carefully dried and sprinkled with boric acid or talc, or a combination of the two. If excessive perspiration persists, a doctor should be consulted.

The Federal Food, Drug and Cosmetic Act states that all packages must have net contents plainly marked, and all products which make therapeutic claims must name all active ingredients on the label. Some foot powders have not met these requirements.

No one of the powders on the market is entirely free of ingredients which can cause allergic reactions on highly sensitive skins. If an undesirable reaction to any powder is noted, its use should, of course, be discontinued at once.

From the *Reports*, September 1940.

HAIR DYES

Unfortunately, none of the really effective hair dyes is completely safe, and the safe ones are not completely effective. If a hair dye must be used, the "amine" preparations are most satisfactory, provided a skin (patch) test has been applied two days before each application, to see whether the individual is or has become sensitive to the dye. Insist on a fresh package; amine dyes are unstable, especially when exposed to air.

No dye can restore the natural color to hair which has become gray. Products advertised to do this usually impart the same color to all hair.

Bleaches produce various blond shades by removing color from hair. Their continued use may make the hair dry and brittle.

For discussion of "anti gray hair vitamin," see the *Reports*, July 1942.

From the *Reports*, January, 1939.

The Buying Guide is not intended for the bookshelf. Carry it with you when you go shopping. It is printed in this compact, pocket size so that it will be convenient to put in your pocket or handbag. It is fully indexed so that you will find it easy to use. Make your Buying Guide work for you.

HAIR SHAMPOOS

The function of a shampoo is to clean the hair and scalp effectively, economically and safely. Anything else it claims to do is irrelevant; don't pay premium prices for worthless claims or ingredients.

Avoid bleaching, dyeing and solvent shampoos. If your scalp is dry, stay away from those containing alcohol. If you have a tendency towards oiliness, you may find Tincture of Green Soap, USP (28-32% alcohol) helpful. No one should use a shampoo with more than 40% alcohol.

Either soap shampoos or the newer soapless type are available. A cake of mild toilet soap will do the job just as effectively, but not so conveniently.

Dry soap content and type of soap present determine the cleansing action of a soap shampoo. It should be made from non-rancid oils and contain no free acid or alkali or impurities. It should be clear and preferably uncolored. If one brand irritates your scalp, switch to another type of soap.

There are two types of soapless shampoos: Sulfated alcohols (lathering) and sulfonated oils (non-lathering). Soapless shampoos can be used under neutral or slightly acid conditions, an advantage for the comparatively few people who cannot tolerate even mild alkalinity. Sulfated alcohols are the highest priced shampoos, but they are the best cleansers, and eliminate defects of soap (alkalinity, curd, etc.). However, they may be too drying for some persons. Sulfonated oils are particularly useful for people with dry scalps. Their cost and cleansing action is about equal to that of soap shampoos.

CU rated 31 brands of soap type and 9 brands of soapless shampoos. Ratings were based on laboratory tests for percent dry content, cleansing action and alkalinity.

From the *Reports*, March 1942.

SOAP SHAMPOOS

BEST BUYS

The following shampoos of the "Acceptable" list were judged to offer the best value for the money. For full details see listings under "Acceptable."

Wildroot Instant. Large size, 43¢; cost per fl. oz., 7.2¢.
Small size, 10¢; cost per fl. oz., 10¢.

CD Castile. 26¢, plus postage if ordered by mail; cost per fl. oz., 3.3¢.

Macy's Castile. 46¢; cost per fl. oz., 2.9¢.

ACCEPTABLE

(In order of quality without regard to price)

Wildroot Instant (Wildroot Co., Buffalo, N. Y.). Large size, 43¢; cost per fl. oz., 7.2¢. Small size, 10¢; cost per fl. oz., 10¢. Contained 15% alcohol. Should not be confused with other types of shampoos marketed by same company.

Harriet Hubbard Ayer (Harriet Hubbard Ayer, Inc., NYC). 85¢; cost per fl. oz., 21.3¢.

Silque (United Drug Co., Boston). 49¢; cost per fl. oz., 8.2¢.

Barbara Gould (Barbara Gould, NYC). 50¢; cost per fl. oz., 11.8¢.

Daggett & Ramsdell (Daggett & Ramsdell, NYC). 60¢; cost per fl. oz., 10.9¢.

Barbara Lane Castile (Whelan Drug Co., NYC). 39¢; cost per fl. oz., 4.9¢.

Klenzo Cocoanut Oil (United Drug Co.). 50¢; cost per fl. oz., 8.3¢.

Marchand's Castile (Chas. Marchand Co., NYC). Large size, 29¢; cost per fl. oz., 7.3¢. Small size, 10¢; cost per fl. oz., 10¢.

CD Castile (Cooperative Distributors, NYC). 26¢; cost per fl. oz., 3.3¢.

Mary Scott Rowland Castile (Mary Scott Rowland, NYC). 50¢; cost per fl. oz., 8.2¢.

Laco Castile (Laco Products, Inc., Waltham, Mass.). Large size, 29¢; cost per fl. oz., 5.8¢. Small size, 10¢; cost per fl. oz., 10¢.

Conti Castile (Conti Products Corp., NYC). Large size, 37¢;

(Continued next page)

ACCEPTABLE—CONT'D

cost per fl. oz., 7.4¢. Small size, 10¢; cost per fl. oz., 10¢.
Macy's Castile (R. H. Macy & Co., NYC). 46¢; cost per fl. oz., 2.9¢.

Macy's Olive and Coconut (R. H. Macy & Co.). 29¢; cost per fl. oz., 3.6¢.

Packer's with pine tar (Packer's Tar Soap, Inc., Mystic, Conn.). 10¢; cost per fl. oz., 10¢. Contained 10% alcohol.

Hennafoam Coconut (Hennafoam Co., NYC). Large size, 39¢; cost per fl. oz., 6.5¢. Small size, 10¢; cost per fl. oz., 10¢.

Mulsified Cocoanut (R. L. Watkins Co., NYC). Large size, 25¢; cost per fl. oz., 12.5¢. Small size, 10¢; cost per fl. oz., 13.3¢.

Palmolive (Colgate-Palmolive-Peet Co., Jersey City, N. J.). Large size, 25¢; cost per fl. oz., 6.3¢. Small size, 10¢; cost per fl. oz., 6.7¢.

Van Ess (Wyeth Chemical Co., Jersey City, N. J.). 49¢; cost per fl. oz., 12.3¢.

Bartell Lemon (Bartell Drug Store, Seattle, Wash.). 33¢; cost per fl. oz., 4.1¢. Contained 15% alcohol.

Kreml (R. B. Semler, Inc., NYC). 39¢; cost per fl. oz., 6.5¢.

Packer's with olive oil (Packer's Tar Soap, Inc.). 10¢; cost per fl. oz., 10¢.

Woodbury Castile (John H. Woodbury, Inc., Cincinnati, Ohio). Large size, 25¢; cost per fl. oz., 4.6¢. Small size, 10¢; cost per fl. oz., 10¢.

Vantine's Vitamin D Olive (Vantine's, NYC). 29¢; cost per fl. oz., 7.3¢. Vitamin claim should be disregarded.

Cas-O-Lan (Halgar, Inc., Chicago). Distributed by Montgomery Ward as Cat. No.—6652. 33¢; cost per fl. oz., 5.5¢.

Lyncrest (W. T. Grant Stores, NYC). 10¢; cost per fl. oz., 2.5¢.

Carson's Castile (Carson Pirie Scott & Co., Chicago). 49¢; cost per fl. oz., 3.1¢.

Lady Hildé Cocoanut (Lady Hildé Cosmetics, Chicago). 59¢; cost per fl. oz., 2.3¢.

NOT ACCEPTABLE

Fitch's Dandruff Remover (F. W. Fitch Co.). 10¢; cost per fl. oz., 10¢. Contained 49.5% alcohol.

Lucky Tiger Magic (Lucky Tiger Mfg. Co.). 33¢; cost per fl. oz., 4.1¢. Contained 47% alcohol.

NOT ACCEPTABLE—CONT'D

Walter's Dandruff Remover Cat. No.—5753 (Sears-Roe-buck). 39¢; cost per fl. oz., 4.9¢. Contained 46% alcohol.

SOAPLESS SHAMPOOS**ACCEPTABLE**

(In approximate order of quality without regard to price)

• SULFATED ALCOHOLS (LATHERING)

Drene (Procter & Gamble, Cincinnati, Ohio). Small size, 10¢; cost per fl. oz., 20¢. Large size, 49¢; cost per fl. oz., 16.3¢.

Drene Special (Procter & Gamble). Small size, 10¢; cost per fl. oz., 20¢. Large size, 49¢; cost per fl. oz., 16.3¢. Claimed to be preferable for dry hair.

Valene (Carrel, Chicago). 49¢; cost per fl. oz., 16.3¢.

Halo (Colgate-Palmolive-Peet Co., Jersey City, N. J.). Large size, 49¢; cost per fl. oz., 14¢. Small size, 10¢; cost per fl. oz., 16¢.

• SULFONATED OILS (NON-LATHERING)

Venida Oil (The Reiser Co., NYC). 47¢; cost per fl. oz., 5.9¢. Mislabeled.

Lustertone (Carrel). 45¢; cost per fl. oz., 7.5¢.

CD Latherless (Cooperative Distributors, NYC). 27¢; cost per fl. oz., 6.8¢.

Mar-O-Oil (Marrow's, Inc., Chicago). 49¢; cost per fl. oz., 8.2¢.

Admiracion (Admiracion Laboratories, Harrison, N. J.). 39¢; cost per fl. oz., 9.8¢.

HAND LOTIONS

The most effective softening agent for the hands is lanolin, which can be conveniently purchased in the form of toilet lanolin. In this form it does not have the objectionable odor or consistency of ordinary "anhydrous" lanolin. The latter is somewhat cheaper, however, and just as effective, but make

sure the hands are wet before application; otherwise the anhydrous lanolin removes moisture from them. A vegetable oil, such as olive oil, or cold cream also is beneficial.

Most proprietary hand lotions are more expensive than these substances, and less effective.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Reread them now and then.

LEG COSMETICS

WPB regulations have banned the manufacture of most brands of leg cosmetics. In view of shortages of regular stocking materials, it seems probable that some modification in the order will be made.

To be practical as a stocking substitute, leg cosmetics should be easy to apply quickly and cheaper than stockings. For successful use, the legs must be kept free of hair.

Four general types of liquid stockings are on the market—the thin and thick cream types, the lotion type and the liquid tint. All can be washed off with soap and water.

Thin creams are best; they are easy to apply evenly, though they may take longer than other types to dry. They cover minor blemishes and usually give the leg a stocking look. Most of them are water resistant and they are not likely to rub off if brushed with a towel or soft cloth when thoroughly dry.

Thick creams can give a good silky finish, but only if much time and care is spent in applying them. Practically all are water resistant, but many rub off onto clothing.

Leg lotions are in effect liquid powder bases, adapted to be used on the legs by addition of darker coloring. Some leave a powdery finish which doesn't resemble stockings and does not rub off easily. Others dry too quickly for proper blending. The "pancake" powder bases (hard cakes applied with moist cotton) are generally not water- or perspiration-proof.

Liquid tints give a tanned appearance rather than a stocking look. They are not waterproof.

From the *Reports*, August 1942. (Labor notes included.)

THIN CREAMS

(In order of quality by groups, and in order of price within each group)

• GOOD

Charbert Leg Make-up (Parfums Charbert, NYC). 6 oz. bottle, \$1.00. Cost per use, about 3¢. Fast drying, slightly streaky.

Velva Leg Film (Elizabeth Arden, NYC). 5 oz. bottle, \$1.00. Cost per use, about 4¢. Probably the best of all tested.

• FAIR

Toney Cosmetic Stockings (Chemical Specialties Co., NYC). 8 oz. bottle, 59¢. Cost per use, about 1¢. Appearance good, slightly streaky. Drops of water or rain leave spots.

Leg-Tan Liquid Hosiery (Knomark Mfg. Co., Brooklyn, N. Y.). Contents not stated on bottle. 5 oz. bottle, 59¢. Cost per use, about 2¢.

Macy's Hose-Tex (R. H. Macy, NYC). 8 oz. bottle, 74¢. Cost per use, about 2¢. Not waterproof. Spotting around hair follicles hours after application.

Sutton Leg Color (Sutton Cosmetics, Inc., NYC). 6 oz. bottle, 59¢. Cost per use, about 2¢. Dries slowly.

THICK CREAMS

(In order of quality by groups, and in order of price within each group)

• GOOD

Ardena Velva Beauty Film, Liquid Stockings (Elizabeth Arden, NYC). 4½ oz. tube, \$1.00. Cost per use, about 1¢. Very hard to wash off.

Legstick (Helena Rubinstein, NYC). 1½ oz. stick, \$1.00. Cost per use, about 3¢. Application is time-consuming and requires hard rubbing.

• FAIR

Jar of Stockings (Irene Blake, NYC). 9 oz. jar from Arnold Constable, New York, \$1.00. Cost per use, about 3¢. 5 oz.

FAIR—CONT'D

jar from Cooperative Distributors, New York, 39¢. Cost per use, about 2¢. Slightly streaky appearance. Does not rub off.

• POOR

Zip Leg-Lure (Jordeau, Inc., NYC). 11 oz. jar, \$1.00. Cost per use, about 2¢. Appearance very poor, streaky.

LOTIONS

(In order of quality by groups, and in order of price within each group)

• GOOD

Blanchard Liquid Hosiery (Parfums Blanchard, NYC). 6 oz. bottle, 50¢. Cost per use, about 2¢. Practically waterproof.

Trique Smooth-on-Hose (Anre, NYC). 8 oz. bottle, \$1.00; 4 oz. bottle, 59¢. Cost per use, about 2¢ or 3¢. Practically waterproof.

Aquacade Leg Lotion (Helena Rubinstein, Inc., NYC). 4 oz. bottle, \$1.00. Cost per use, about 4¢. Practically waterproof.

Du Barry Powder Lotion (Richard Hudnut, NYC). 5 oz. bottle, \$1.50. Cost per use, about 5¢. Waterproof. Powdery appearance may be removed by polishing.

• FAIR

La Bonita Leg Make-up (House of Hollywood, Hollywood, Calif.). 4 oz. bottle, 25¢. Cost per use, about 1¢. Dries slowly. Practically waterproof.

Rose Laird Leg Tone (Rose Laird, NYC). 8 oz. bottle, \$1.10. Cost per use, about 2¢. Not waterproof.

• POOR

Plat-Num Make-up Stocking (Plat-Num Laboratories, NYC). 1½ oz. bottle, 10¢. Cost per use, about 1¢. Powdery appearance which rubs off. Not waterproof.

Miner's Make-up for the Legs (Miner's, Inc., NYC). 3 oz. bottle, 25¢. Cost per use, about 1¢. Streaky appearance unless great care is used in application. Drops of water make "runs."

POOR—CONT'D

Leg Show (Dorothy Gray, Ltd., NYC). 10 oz. bottle, \$1.00. Cost per use, about 2¢. Appearance poor—streaky with little covering effect. Not waterproof.

Debonair Liquid Chiffon (Rochester Laboratories, Rochester, Minn.). 6 oz. bottle, \$1.50. Cost per use, about 4¢. Streaky appearance may be smoothed out with water. Not waterproof.

Madame Olga Pataky (Liquid Beautifier, Philadelphia, Pa.). 4 oz. bottle, \$1.25. Cost per use, about 5¢. Streaky unless great care is exerted in application. Not waterproof. Rubs off.

Bonne Bell Nite and Day Foundation ("Victory Stockings") (Bonne Bell, Inc., Cleveland, Ohio). 2 oz. bottle, \$1.00. Cost per use, about 9¢. Streaky, hard to apply. Waterproof.

Nina Stockings Out of a Bottle (Produits Nina, Inc., NYC). 2 oz. bottle, \$1.00. Cost per use, about 10¢. Appearance streaky. Rubs off. Not waterproof.

LIQUID TINTS

(In order of cost per application)

E-Z Magic Stocking (Plat-Num Laboratories, NYC). 1½ oz. bottle, 10¢. Cost per use, about 1¢.

Esther Bonney's Artificial Hosiery (Comfort Mfg. Co., Chicago, Ill.). 1 oz. bottle, 10¢. Cost per use, about 2¢.

Kathryn Davis Bottled Hose (M. V. C. Laboratories, Toledo, Ohio). 1 oz. bottle, 10¢. Cost per use, about 2¢.

Harriet Hubbard Ayer's Liquid Stocking (Harriet Hubbard Ayer, NYC). 4 oz. bottle, \$1.00. Cost per use, about 4¢.

Bellin's Wondersheer (Bellin's Wonderstoen Co., Inc., NYC). 4 oz. bottle with small sponge, \$1.10. Cost per use, about 4¢.

Tone Complexion Tint (Tone Laboratories, Inc., NYC) 1 oz. bottle, \$1.00; 4 oz. bottle, \$2.50; 12 oz. bottle, \$6.00. Cost per use about 17¢, 12¢ or 9¢. Demonstrator suggests using special sponge for application. Sponge for applying costs 75¢.

LIPSTICKS

Experts consider the best lipstick to be fairly hard and medium greasy. It should have good adherence to the lips (but not to fabrics) and should alter little in color after application. It should not become soft at ordinary temperatures or melt on a warm Summer day; yet it must not remain hard at high temperatures, or it will crumble. The perfume of the lipstick must be pleasant and must mask the undesirable odors of the greases it contains. The flavor should be bland.

After present stocks run out, lipstick cases will be made of plastic or even wood or cardboard. Refills can be had for metal cases.

A number of lipstick brands have changed in quality since CU's last tests (see *Reports*, May 1939). Variations in quality between large and 10¢ sizes were found in many brands. In some brands tested, differences in pigment between a light and a dark shade caused considerable variation in other qualities of the stick, though in some brands the properties of their whole line appeared uniform.

Because of the chaotic number of color names created by lipstick makers, the ratings include the manufacturer's name of the color tested plus a number in parenthesis referring to CU's classification according to this scheme: (1) bright, yellowish red; (2) medium red, with orange cast; (3) bright, true red; (4) dark, true red; (5) light, purplish red; (6) dark, purplish red.

From the *Reports*, August 1942. (Labor notes included.)

BEST BUYS

The following brands of the "Acceptable" list were judged to offer the best value for the money. See listings under Acceptable."

ayton's. 10¢; cost per gram, 7¢.

izabeth Kent. 10¢; cost per gram, 5¢.

eather. 10¢; cost per gram, 4¢.

issproof. 10¢; cost per gram, 7¢.

ACCEPTABLE

(In order of quality, but note comments)

ax Factor (Max Factor & Co., Hollywood). 50¢; cost per gram, 33¢. "Light," (2); "Medium," (3). Swivel container. Perfume good.

on Juan (Valdor, Inc., NYC). \$1.00; cost per gram, 44¢.

ACCEPTABLE—CONT'D

- "Hostess Red," (3); "Raspberry," (6). Swivel container. Perfume good. 10¢ size was found "Not Acceptable."
- Tangee** (Geo. W. Luft Co., NYC). 50¢; cost per gram, 26¢. "Theatrical Red," (2); "Red-Red," (3). Push-up container. Perfume good.
- Helena Rubinstein** (Helena Rubinstein, Inc., NYC). \$1.00; cost per gram, 48¢. "Life Red," (3); "Red Velvet," (4). Swivel container. Perfume good.
- Revlon** (Revlon Products Corp., NYC). \$1.00; cost per gram, 33¢. "Red Punch," (3); "Cherry Coke," (4). Swivel container. Perfume fair.
- Tayton's** (Tayton Co., Hollywood). 10¢; cost per gram, 7¢. "Sunkissed Poppy," (2); "Toreador," (4). Push-up container. Perfume satisfactory.
- Evening in Paris** (Bourjois, NYC). 55¢; cost per gram, 30¢. "Light," (2); "Cerise," (4). Swivel container. Perfume fair.
- Jacqueline Cochran** (Jacqueline Cochran, Roselle, N. J.). \$1.00; cost per gram, 50¢. "Merry-Go-Round," (2); "Captain's Choice," (6). Swivel container. Perfume fair.
- Seventeen** (Maison Jeurelle, NYC). \$1.00; cost per gram, 34¢. "Light," (1); "Maroon" (6). Swivel container. Perfume fair.
- Elizabeth Kent** (Elizabeth Kent, Inc., NYC). 10¢; cost per gram, 5¢. "Vivid," (2); "Rio Red," (3). Swivel container. Perfume fair.
- Drezma** (Drezma, Inc., NYC). \$1.00; cost per gram, 40¢. "Cool Flame," (3); "Medium," (orchid-pink). Swivel container. Perfume good. "Cool Flame" had low softening point. 10¢ size was found "Not Acceptable."
- Lucien Lelong** (Lucien Lelong, NYC). \$1.00; cost per gram, 49¢. "Flippant," (3); "Poker Chip Red," (2). Swivel container. Perfume fair.
- Elmo** (Elmo Sales Corp., Philadelphia). \$1.00; cost per gram, 53¢. "Paint Brush," (2); "Dubonnet," (4). Swivel container. Perfume fair.
- Yardley** (Yardley, Inc., NYC). \$1.10; cost per gram, 44¢. "Vivid," (2); "Penny Red," (2). Swivel case. Perfume fair.
- Frances Denney** (Frances Denney, Philadelphia). \$1.00; cost per gram, 50¢. "Champagne," (2); "Dark Wine," (6). Swivel container. Perfume fairly good.
- Dorothy Gray** (Dorothy Gray, NYC). \$1.00; cost per gram, 48¢. "Avis," (2); "Coppertan," (3). Swivel container. Perfume fair. Both had low softening points.

(Continued next page)

ACCEPTABLE—CONT'D

Vita Ray (Vita Ray Corp., NYC). \$1.00; cost per gram, 35¢. "Blush," (2); "Exotic," (3). Swivel container. Perfume fair. Both had low softening points.

Americie (Marshall Field & Co., Chicago). \$1.00; cost per gram, 31¢. "Light," (3); "Vivid Red," (3). Swivel container. Sticks had castor oil odor which was not covered completely by the perfume.

CD (Cooperative Distributors, Inc., NYC). 25¢; cost per gram, 14¢. "Light," (2); "Dim Light," (6). Swivel container. Perfume fair. Softening point of "Light" rather low.

House of Westmore (House of Westmore, Hollywood). 50¢; cost per gram, 19¢. "Strawberry Blonde," (3); "Charel," (5). Swivel container. Perfume good. "Strawberry Blonde," had low softening point; "Charel" changed color.

Colonial Dames (Colonial Dames, Hollywood). 50¢; cost per gram, 26¢. "Light," (1); "Romany Red," (3). Swivel container. Perfume fair.

Heather (Heather Co., Jersey City, N. J.). 10¢; cost per gram, 4¢. "Vivid Glow," (1); "Glorifying Red," (4). Push-up container.

Luxor (Luxor, Ltd., Chicago). 50¢; cost per gram, 20¢. "Rose blush," (pink); "Tulip Red," (3). Swivel container. Perfume fairly good. Softening point of "Tulip Red" rather low.

DuBarry (Richard Hudnut, NYC). \$1.00; cost per gram, 38¢. "Carmeem," (3); "Regal Red," (6). Swivel container. Perfume fair.

Kissproof (Affiliated Products, Inc., Jersey City, N. J.). 10¢; cost per gram, 7¢. "Red Galore," (3); "Natural," (4). Swivel container. Perfume fairly good.

Marvelous (Richard Hudnut). 10¢; cost per gram, 13¢. "Dresden Carmeen," (3). Very small and rather inconvenient push-up container. Perfume fair.

Barbara Gould (Barbara Gould, NYC). \$1.00; cost per gram, 48¢. "Pink Camillia," (3); "Medium," (5). Swivel container. Perfume fair but weak.

Woodbury (John H. Woodbury, Inc., Cincinnati). 25¢; cost per gram, 16¢. "Flame," (1); "Burgundy," (4). Swivel container. Perfume of "Flame," fair; of "Burgundy," poor. Adherence of "Burgundy," poor.

Charles of the Ritz (Charles of the Ritz, NYC). \$1.00; cost per gram, 53¢. "Clair," (1); "Fandango Night," (6). Swivel container. Perfume fair.

ACCEPTABLE—CONT'D

Lady Esther (Lady Esther, Chicago). 25¢; cost per gram, 13¢. "Madcap," (3); "Cherry Red," (5). Swivel container, but cap poorly fitted, and tends to fall off. Perfume fair. 10¢ size was found "Not Acceptable."

House of Westmore (House of Westmore). 25¢; cost per gram, 19¢. "Strawberry Blonde," (3); "Garnet" (6). Swivel container. Perfume fair. "Strawberry Blonde" had very low softening point.

Primrose House (Primrose House, NYC). \$1.00; cost per gram, 50¢. "Light," (1); "Carnival," (5). Swivel container. Perfume fair.

Cashmere Bouquet (Colgate-Palmolive-Peet, Jersey City, N. J.). 10¢; cost per gram, 5¢. "Changeable," (orange which changes to pink); "Deep Red," (4). Push-up container. Perfume fair.

Translucid (Houbigant, NYC). \$1.00; cost per gram, 58¢. "Cherry," (3); "True Ruby Red," (3). Swivel container. Perfume fairly good.

Flame-Glo (Rejuvia Beauty Laboratories, Inc., NYC). 10¢; cost per gram, 6¢. "Medium," (3); "Raspberry," (6). Push-up container. Perfume fair.

Irresistible (Irresistible, Inc., Jersey City, N. J.). 10¢; cost per gram, 6¢. "Pink Rose," (3); "Medium," (4). Swivel container. Perfume fairly good.

Macy's (R. H. Macy & Co., NYC). 44¢; cost per gram, 21¢. "Holly Red," (2); "Tango Red," (3). Swivel container. Perfume fair. Softening points too low.

Tankee (Geo. W. Luft Co.). 10¢; cost per gram, 17¢. "Natural," (orange which changes to purplish pink); "Red-Red," (3). Plastic push-up container. Perfume strong and good. "Natural" had extremely low softening point.

H.S.G. (Henri S. Gompes, Inc., NYC). 39¢; cost per gram, 27¢. "Light," (2) "Dark," (3). Swivel container. Perfume fair. Adherence of "Dark," poor.

Richard Hudnut (Richard Hudnut). \$1.00; cost per gram, 43¢. "Carmeen," (3); "Black Cherry," (4). Swivel container. Perfume fair. Consistency of "Black Cherry," soft and greasy, adherence poor.

Louise Andre (A.M.C., NYC¹). \$1.00; cost per gram, 57¢. "Ruby Red," (3); "Rebellion," (2). Swivel container. Perfume fair. Softening point of "Ruby Red" too low.

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

- Drezma** (Drezma, Inc.). 25¢; cost per gram, 16¢. "Medium," (orchid). Metal push-up container. Perfume fair. 10¢ size was found "Not Acceptable."
- Bal Masque** (Lenthalic, NYC). \$1.00; cost per gram, 51¢. "Indelible Vivid," (1); "Brune Satine," (2). Swivel container. Perfume fair. "Brune Satine" had unpleasant bitter flavor, and tendency to leave permanent stain on cotton fabric.
- Chiffon** (Primrose House). 10¢; cost per gram, 6¢. "Chiffon Red," (3); "Raspberry," (5). Push-up container. Perfume fair. Softening point of "Chiffon Red" low.
- Leon Laraine** (Leon Laraine, Chicago). 75¢; cost per gram, 30¢. "Rose Red," (2); "Raspberry," (2). Swivel container. "Rose Red" had unpleasant taste; "Raspberry" had unpleasant, rancid odor, poor adherence.
- Daggett & Ramsdell** (Daggett & Ramsdell, NYC). \$1.00; cost per gram, 50¢; "Geranium Red," (2); "Cherry Red," (4). Swivel container. "Geranium Red" had unpleasant greasy odor and taste. Both had rather low softening points.
- Almay** (Almay Pharmaceutical Corp., NYC). \$1.10; cost per gram, 50¢. "Cherry," (3); "Dark," (4). Swivel container. Perfume fair. Softening point of "Cherry" too low. "Dark" left permanent stain on cotton fabric.
- Tattoo** (Associated Distributors, Inc., Chicago). 49¢; cost per gram, 21¢. "Pastel," (3); "Hawaiian," (2). Perfume fair. "Pastel" leaves deep, permanent stain on cotton fabric.
- Angelus Rouge Incarnat** (Louis Philippe, Inc., Jersey City, N. J.). 55¢; cost per gram, 42¢. "Coronation Red," (2); "Medium," (4). Swivel container. Perfume fairly good. Consistency of "Medium," soft and greasy, softening point too low.
- D'Orsay** (D'Orsay, NYC). \$1.00; cost per gram, 33¢. "Geranium," (3); "Framboise," (5). Swivel container. Perfume fair. Softening point of "Framboise" too low.
- Prince Matchabelli** (Prince Matchabelli, NYC). \$1.00; cost per gram, 27¢. "C," (3); "R," (4). Convenient automatic container which can be operated with one hand. Perfume fairly good. Consistency of "R," soft and greasy.
- Coty Sub-Deb** (Coty, NYC). 50¢; cost per gram, 36¢. "Bright," (2); "Gitane," (1). Swivel container. Perfume fair. Softening points too low.
- Hampden** (Hampden Sales Ass'n, NYC). 10¢; cost per gram,

ACCEPTABLE—CONT'D

6¢. "Blonde," (1); "Ruby Red," (3). Push-up container. Perfume fairly good. Softening points too low.

Lip Tip (Miner's Inc., NYC). 10¢; cost per gram, 8¢. Push-up container. "Radiant Red," (3); "Red Vogue," (3). Perfume fair. Softening point of "Red Vogue" too low.

Pond's "Lips" (Pond Extract Co., NYC). 55¢; cost per gram, 22¢. "Heart Beat," (dark, purplish); "Honey," (2). Swivel container. Perfume fair. Adherence of "Heart Beat," poor. Softening points, especially of "Honey," too low. 10¢ size was found "Not Acceptable."

Rejuvia (Rejuvia Beauty Laboratories, Inc.). 10¢; cost per gram, 4¢. "Orchid," (bright orchid); "Brunette," (5). Push-up container. Perfume fair. Softening points too low.

Marvelous (Richard Hudnut). 55¢; cost per gram, 14¢. "Carmen Dresden," (3); "Parisian," (2). Push-up container. Perfume fair. Softening point of "Parisian," too low.

Colonial Dames (Colonial Dames). \$1.00; cost per gram, 33¢. "Light," (1); "Medium," (4). Swivel container. Perfume fair. Softening point of "Light," extremely low. "Medium" left permanent stain on cotton fabric.

NOT ACCEPTABLE

L'Adonna (L'Adonna). 50¢; cost per gram, 20¢. "Light," (1); "Black Cherry," (6). Swivel container. "Light" had rancid odor and taste; perfume of "Black Cherry," fair. Softening point of "Light" too low; it also left strong, permanent stain on cotton fabric.

Elizabeth Post (Elizabeth Post). 10¢; cost per gram, 6¢. "Heavenly Pink," (orchid); "Indian Red," (4). Swivel container. Perfume fair. Softening points, especially of "Heavenly Pink," too low; latter also left permanent stain on cotton fabric.

Princess Pat (Princess Pat, Ltd.). 10¢; cost per gram, 7¢. "Light," (2); "Natural," (3). Swivel container. Perfume and taste of "Light" poor; of "Natural," fair. Adherence of "Light" poor. Softening point of "Light" too low.

Embassy (Vantine). 20¢; cost per gram, 10¢. "Blonde," (1); "Plum," (5). Swivel container. Perfume fair. Softening points too low.

Pond's "Lips" (Pond Extract Co.). 10¢; cost per gram, 5¢. "Honey," (2); "Dark Secret," (4). Push-up container. Perfume fair. Softening points, especially of "Dark Secret,"

NOT ACCEPTABLE—CONT'D

too low; latter also leaves permanent stain on cotton fabric. 55¢ size was "Acceptable."

Park & Tilford (Park & Tilford). 10¢; cost per gram, 6¢. "Medium," (orchid); "Rose Glow," (5). Push-up container. Perfume fair. Softening points too low.

Harriet Hubbard Ayer (Harriet Hubbard Ayer). 55¢; cost per gram, 31¢: "Ayer Pink," (1); "Flag Red," (2). Both swivel and push-up container available at the same price. "Ayer Pink" had rancid odor; perfume of "Flag Red" good. Adherence of "Ayer Pink" poor. "Ayer Pink" had unpleasant flavor, and too low softening point. "Flag Red" left deep, permanent stain on cotton fabric.

Lady Marlow (Lady Marlow Co.), 69¢; cost per gram, 23¢. "Light," (2); "Haunting" (brownish-red). Swivel container. Perfume fair. Softening points too low. "Haunting" left permanent stain on cotton fabric.

Elizabeth Arden (Elizabeth Arden). \$1.50; cost per gram, 79¢. "Mat Victoire" (3); "Ruby" (6). Swivel container. "Mat Victoire" had rancid odor; perfume of "Ruby" fair. Consistency of "Mat Victoire" soft and greasy, adherence poor. Softening points, especially of "Mat Victoire" too low.

Lady Esther (Lady Esther). 10¢; cost per gram, 14¢. "Scamp Red," (1); "Cherry Red," (5). Inconvenient screw-top plastic push-up container. Perfume fair. Consistency of "Scamp Red" soft and greasy. Softening points too low. 25¢ size was "Acceptable."

Don Juan (Valdor, Inc.) 10¢; cost per gram, 13¢. "Orange Red," (2); "Raspberry," (6). Push-up container. Perfume and taste of "Orange Red," poor; of "Raspberry," fair. Consistency of "Orange Red" soft and greasy. Adherence of "Orange Red" poor. \$1.00 size was "Acceptable."

MW Cat. No. 1359 (Montgomery Ward). 42¢; cost per gram, 20¢. "Coral," (1); "Brunette," (6). Swivel container. Perfume fair. Consistency of "Coral," soft and greasy. Softening points extremely low.

Guerlain (Guerlain). \$1.50; cost per gram, 53¢. "Pois de Senteur," (orange-pink); "Dark," (6). Swivel container. Perfume fair. Adherence poor. Softening points extremely low. Left permanent stains on cotton fabric.

Drezma (Drezma). 10¢; cost per gram, 25¢. "Light," (3). Push-up container. Perfume poor. Consistency soft and greasy. Adherence poor. Softening point too low.

PERMANENT WAVES

Though techniques may vary, practically all permanent waves do essentially the same thing. They distort the hair shaft into a curl by winding it around a rod, and then make the distortion "permanent" by application of an alkaline solution and heat. The alkalis used are ammonia (which has an unpleasant odor), certain organic compounds (less unpleasant, but like ammonia in action) or sodium and potassium compounds (odorless, but they become concentrated as heat is applied and may harm the hair).

Heat may be applied electrically (machine wave) or chemically (machineless). The machine wave is the more popular method and is at least as safe and comfortable as the machineless. Better machines are regulated so that they cannot rise above a given temperature, or are operated at low voltage to reduce shock hazard.

The heat of machineless waves is supplied by chemical reaction which takes place when water is added to the heating pads. Pads of the same brand may not be uniform; moreover, there is no standard for the correct amount of water to be added. For both these reasons, temperatures may vary considerably.

In "remote control" waves, the hair is wound as for a machine wave, and then a pre-heated element is put on the curls and allowed to cool on the hair. There are no special advantages to this method, and the high initial temperature required may harm the hair.

With the machine wave control, curling depends on time of heating; with machineless or "remote control," the curl is regulated by strength of solution used.

Following are some general facts about permanent waving, condensed from CU's studies of the subject:

A permanent wave, carefully applied, does no harm to hair or scalp.

The success of a permanent wave is determined much more by the skill and technique of the operator than by the composition of the materials used.

Prices of permanent waves range from \$1 to \$25 or more, depending on a variety of factors. You should be able to get a good wave by skilled operators for \$5.

Some manufacturers put out a variety of brands, selling at different prices, but practically alike in composition (for example, Zotos, \$10; Jamal, \$7.50; Vapor Marcel, \$6; Peer,

\$5; are all made by Sales Affiliates). There's no point in paying for brand name alone.

A test curl is essential before every wave; it is particularly important for white, dyed or bleached hair.

There is no such thing as a self-setting wave.

"Wave-cuts" are not all they're claimed to be. They require frequent "push-ups" (setting); each haircut must be an expensive wave-cut; and they can't make the ends of the hair curl.

Home permanent waves are almost never successful.

Beware of new and unrecognized methods of permanent waving. The "Willat Method of Heatless Permanent Waving," for example, was condemned by the Food and Drug Administration, because it was claimed to have caused the death of a user.

From the *Reports*, April and June 1941.

ROUGE

Different brands of rouge vary so little in quality that choice should be made on the basis of price, convenience of container and appropriateness of color. Best buys come from the 5&10¢ store.

Colors are not standardized; one must examine the rouge itself rather than the label on the box, and remember that the color of rouge often looks different when it is applied to the skin.

Rouge is sold in many forms: cake, powder, liquid, cream and paste. Cake rouge is used most widely. Both powder and cake are highly colored face powders; added to the latter is a binding agent to keep it from crumbling. This is usually a gummy substance such as tragacanth, but starch is sometimes used. Starch tends to have a drying effect; people with dry skins, and the few who are especially sensitive to starch should avoid rouges containing it. If you notice any irritation from a particular brand, stop using it at once.

Cream rouge may be either the cold-cream (greasy) type or the vanishing-cream (non-greasy) type. These rouges have a rather limited range of colors. More common and more satisfactory than the creams are the paste rouges, which are highly colored pigments in a petrolatum base. They actually color the skin, while the cream rouges merely form a colored film.

SANITARY PADS AND TAMPONS

CU tested sanitary pads and tampons for their all-round utility.

The absorbent section of most pads was found to consist of either absorbent crepe paper, cellulose linters (cellulose ground into fine fibers) or cotton. The cotton pads tested had no water-repellent features; they held large amounts of liquid before leaking, but the outside stained through quickly. All the cellulose linter pads and some of the absorbent crepe paper pads had some sort of water-repellent features, which are considered desirable.

An ideal sanitary pad would have a gauze sheath inside of which a water-repellent layer covered the bottom, sides and outer edges of the top. In the center of its absorbent fibers it would have a layer of grooved paper to direct the liquid down the length of the pad. None of the 37 pads tested actually had this ideal construction, though some approached it. Pads made of cellulose sheets or linters without water-repellent coverings were far from ideal, as were those with non-water-repellent cotton linters which covered the entire pad surface.

Tampons are more compact than pads and interfere less with normal activities. Since they are smaller and hold less liquid, they can be used only by women with moderate or slight flow or during the last days of the period. Most gynecologists recommend their use only by married women.

The safety of tampons has not yet been the subject of a thorough clinical study. Some doctors hold that tampons may cause infection of the uterus and tubes by damming back the flow, but this is considered unlikely in women with moderate or slight flow. Their use has a definite advantage in preventing possible contamination of the vaginal area by fecal material.

Tampons are either compressed or crimped to final size. Both types are about equally efficient.

Pads were tested for absorption before striking through and for total absorption. Tampons were tested for speed of absorption and total absorption. General construction was considered. There was little variation among brands in size, weight or bulkiness.

From the *Reports*, June 1942.

(Continued next page)

PADS

BEST BUYS

The following pads of the "Acceptable" list were judged to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Puritas. 22¢.

Sanimac. 61¢ for 3 doz. Cost per doz., 20.3¢.

Belfair. 13¢.

ACCEPTABLE

(In order of quality without regard to price; price is given for box of 1 doz. unless otherwise noted)

Puritas (Marshall Field & Co., Chicago). 22¢.

Sanimac (R. H. Macy & Co., NYC). 61¢ for 3 doz. Cost per doz., 20.3¢.

Aimcee (Associated Merchandising Corp., NYC).¹ 22¢.

Style-Pak (F. & W. Grand). 15¢ for 8. Cost per doz., 22.5¢.

Kotex Regular (International Cellucotton Products Co., Chicago). 22¢.

Kotex Super (International Cellucotton Products Co.). 22¢.

Modess Junior (Personal Products Corp., Milltown, N. J.). 20¢.

Modess Regular (Personal Products Corp.). 22¢.

Lanvette (San-Nap-Pak Mfg. Co., NYC). 20¢.

Nappettes (Owl Drug Co., San Francisco). 19¢. *Nappettes* in the "Not Acceptable" list, sold by Liggett Drug Co. were not the same pads.

Veldown (International Cellucotton Products Co.). 22¢.

Ramona (Weinstein Co., Inc., San Francisco). 20¢.

Belfair (Seabury, Inc., New Brunswick, N. J.). 13¢.

CD (Cooperative Distributors, 114 E. 16th St., NYC). 35¢ for 2 doz. Cost per doz., 17.5¢.

San-Nap-Pak (San-Nap-Pak Mfg. Co.). 20¢.

Co-op (National Cooperatives, Inc., Chicago). 19¢.

Venus (Venus Corp., NYC). \$1. Cotton filled, and sewn on both ends to prevent shifting of cotton.

Economy (R. H. Macy & Co.). 22¢.

Lotus Deluxe (Sitroux Co., Inc., NYC). 20¢.

Faircrest (The Fair, Chicago). 20¢.

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

Kotex Junior (International Cellucotton Products Corp.). 22¢.

Softnaps (Whelan Drug Stores, NYC). 17¢.

The following pads are "Acceptable" if normal flow is small, or for the last day or two of the period.

Sanovral (S. H. Kress Stores). 15¢ for 8. Cost per doz., 22.5¢.

Aimcee Cotton (Associated Merchandising Corp.¹). 35¢. Cotton pad of only fair quality.

Gallia (The White House Store, San Francisco). 50¢. Cotton pad of only fair quality.

Gimbels 808 (Gimbels Bros., NYC). 69¢ for 50. Cost per dozen, 16.5¢.

Gracets (Gimbels Bros.). 19¢.

Blue Diamond (Hearn's, NYC). 19¢.

NOT ACCEPTABLE

The following pads are rated "Not Acceptable" because of their poor absorption.

Cashmere (F. W. Woolworth Stores). 15¢ for 10. Cost per doz., 18¢.

Nu-Vel (Walgreen Co.). 20¢.

Topaz (S. S. Kresge Stores). 20¢.

Iris (Sioux Co., Inc.). 20¢.

Dixie Belle (Acme Cotton Products Co., Inc.). 20¢. Cotton pad of poor quality.

Marlene (J. J. Newberry Stores). 15¢ for 8. Cost per doz., 22.5¢.

Ward's Super Soft Cat. No.—4730 (Montgomery Ward). 24 for 39¢ plus postage. Cost per doz., 19.5¢ plus postage.

Vees (Rieser Co., Inc.). 19¢.

Nappettes (Liggett Drug Co.). 17¢. Nappettes in the "Acceptable" list, sold by Owl Drug Co., San Francisco, were not the same pad.

TAMPONS

All the tampons tested were similar in all-round efficiency, with the exception of Cashay, which was found to be slightly superior. Choice of tampons is a matter of individual prefer-

¹ For a list of AMC stores, see page 12.

234 TAMpons, SHAVING CREAM

ence and price. The following listing is in alphabetical order. Prices are for 1 doz., unless otherwise noted.

Cashay (Park & Tilford, NYC). 33¢.

Fibs (International Cellucotton Products Co., Chicago). 20¢.

Holly-Pax (Universal Cotton Products Corp., Hollywood, Cal.). 20¢.

Lotus (Sioux Co., Inc., NYC). 5 for 10¢. Cost per doz., 24¢.

Meds (Personal Products Corp., Milltown, N. J.). 25¢ for 10. Cost per doz., 30¢.

Tampax Regular (Tampax, Inc., New Brunswick, N. J.). 31¢ for 10. Cost per doz., 37.2¢.

Tampax Junior (Tampax, Inc.). 31¢ for 10. Cost per doz., 37.2¢.

Tampax Super (Tampax, Inc.). 31¢ for 10. Cost per doz., 37.2¢.

Wix (Universal Products Corp., Hollywood). 45¢.

SHAVING SOAPS AND CREAMS

Cakes of shaving soap are "Best Buys" for economy; besides, they don't come in tubes made of scarce metals.

An effective shaving preparation must first remove the natural oils surrounding the hair shafts, and then hold moisture around the hairs. In general, lathering preparations—marketed as cakes, creams, bowls, powders, sticks, liquids—seem to do this more effectively than brushless creams. The stable soap lather need not be worked up into a bulky mass, but should be sufficient to cover the beard completely.

The most important steps in getting a good shave are (1) to soften the beard properly, (2) to use a sharp blade and (3) to hold the razor so that its line of travel is not at a right angle to the edge of the blade, but at an angle that will give a partly slicing stroke. Don't rush through the beard softening process. Under most favorable conditions a minimum of two minutes is necessary for water to soak into the hair. Hot or warm water is preferable, and the face should be kept wet throughout the shaving period. Stretching the skin slightly may help you to get a closer shave.

Special claims (lubrication, hair support, antiseptic action, etc.) for various shaving preparations should be treated with skepticism.

Moisture content, free alkali (an excess is irritating), alcohol insoluble materials (fillers), and free fatty acids were tested for. Products were also checked for consistency, suitability of containers, and net weight. Tests for lathering ability showed only negligible differences among the different brands.

From the *Reports*, September 1941. (Labor notes included.)

SHAVING SOAPS

BEST BUYS

• CAKES

Williams Mug Soap (J. B. Williams Co., Glastonbury, Conn.). 5¢. Cost per oz. dry soap, 3.1¢.

Colgate Cup Soap (Colgate-Palmolive-Peet Co., Jersey City, N. J.). 5¢. Cost per oz. dry soap, 3.1¢.

Palmolive Shaving Soap (Colgate-Palmolive-Peet Co.). 5¢. Cost per oz. dry soap, 3.1¢.

ALSO ACCEPTABLE

(In order of increasing cost per ounce of dry soap within each group)

• CAKES

Williams Shaver's Delight (J. B. Williams Co., Glastonbury, Conn.). 10¢. Cost per oz. dry soap, 5¢.

Colgate Super Shaving Soap (Colgate-Palmolive-Peet Co., Jersey City, N. J.). 10¢. Cost per oz. dry soap, 5.4¢.

Yankee Soap (J. B. Williams Co.). 10¢. Cost per oz. dry soap, 6.4¢. Net weight not stated on label.

• POWDERS AND STICKS

Colgate Shave Stick (Colgate-Palmolive-Peet Co.). Small size, 10¢. Cost per oz. dry soap, 11.4¢. Large size, 33¢. Cost per oz. dry soap, 18.9¢.

Colgate Shave Powder (Colgate-Palmolive-Peet Co.). Large size, 23¢. Cost per oz. dry soap, 11.9¢. Small size, 10¢. Cost per oz. dry soap, 12.6¢.

Williams Shave Powder (J. B. Williams Co.). 33¢. Cost per oz. dry soap, 16.5¢.

Cuticura Shave Stick (Potter Drug & Chemical Corp., Malden, Mass.). 33¢. Cost per oz. dry soap, 17.1¢. High

ALSO ACCEPTABLE—CONT'D

percentages of alcohol insoluble material and free acid content.

Williams Shave Stick (J. B. Williams Co.). 33¢. Cost per oz. dry soap, 18¢.

Yardley Shave Stick (Yardley & Co., Ltd., London and NYC). 50¢. Cost per oz. dry soap, 28.4¢. High percentages of free acid and alcohol insoluble material.

• SHAVING BOWLS

Macy's (R. H. Macy & Co., NYC). 47¢. Cost per oz. dry soap, 16.5¢. High percentages of alcohol insoluble material.

Cashmere Bouquet (Colgate-Palmolive-Peet Co.). 79¢. Cost per oz. dry soap, 26.3¢.

Lenthéric (Lenthéric, Inc., NYC). \$1. Cost per oz. dry soap, 31.2¢. High percentages of alcohol insoluble material and free acid.

Yardley (Yardley & Co., Ltd.). \$1. Cost per oz. dry soap, 39¢. High percentage of free acid.

NOT ACCEPTABLE

• CAKES

Regal Super Lather Soap Cat. No.—4915 (Sears-Roebuck). 10¢ for 3 cakes, plus postage. Cost per oz. dry soap, 1.2¢. Contained free alkali and high percentage of alcohol insoluble material.

Ward's Shave Tablet Cat. No.—4248 (Montgomery Ward). 14¢ for 3 cakes, plus postage. Cost per oz. dry soap, 2.5¢. Contained excessive alcohol insoluble material.

• SHAVE STICKS

Resinol (Resinol Chemical Co.). 23¢. Cost per oz. dry soap, 14¢. Contained high percentage of alcohol insoluble material and free alkali.

• SHAVING BOWLS

Old Spice (Shulton Inc.). \$1. Cost per oz. dry soap, 26.8¢. Contained excessive alcohol insoluble material, and high percentage of free acid.

Castillian (Name of manufacturer or distributor not given on label). 59¢. Cost per oz. dry soap, 28.2¢. Contained excessive

NOT ACCEPTABLE—CONT'D

alcohol insoluble material and high percentage of free acid.
Fougère Royale (Houbigant, Inc.). \$1. Cost per oz. dry soap, 59.1¢. Contained excessive alcohol insoluble materials and high percentage of free acid.

• LIQUID SOAPS

Conti Liquid Shave (Conti Products Corp.). 33¢. Cost per oz. dry soap, 15.8¢. Contained free alkali.

LATHERING CREAMS**BEST BUYS**

Craig-Martin (Comfort Mfg. Co., Chicago. Sold at Woolworth's.). 10¢. Cost per oz. dry content, 7.3¢.

Dart (S. H. Kress Stores). 10¢. Cost per oz. dry content, 7.6¢.

Gibson's (Whelan Drug Co., NYC). 10¢. Cost per oz. dry content, 7.9¢.

ALSO ACCEPTABLE

(In order of increasing cost per ounce of dry content)

Ladd's (Hamilton Products Co., NYC). 25¢. Cost per oz. dry content, 8.5¢.

Cosmos (Trade Laboratories, Inc., Newark, N. J.). Distributed by Cooperative Distributors, NYC. 11¢. Cost per oz. dry content, 8.6¢.

Shavetex (Park Laboratories, NYC). 23¢. Cost per oz. dry content, 9¢. High free acid content.

Latherall (Trade Laboratories, Inc.). Large size, 20¢. Cost per oz. dry content, 9.4¢. Small size, 10¢. Cost per oz. dry content, 11.3¢.

Macy's (R. H. Macy & Co., NYC). 29¢. Cost per oz. dry content, 10.8¢.

Ward's Cat. No.—3901 (Montgomery Ward). 21¢, plus postage. Cost per oz. dry content, 10¢.

Sanikleen (Sanikleen Products Co., Memphis, Tenn.). 10¢. Cost per oz. dry content, 10.9¢. High free acid content.

Palmolive (Colgate-Palmolive-Peet Co., Jersey City, N. J.). Large size, 37¢. Cost per oz. dry content, 11¢. Small size, 10¢. Cost per oz. dry content, 14.9¢.

Colgate (Colgate-Palmolive-Peet Co.). Large size, 37¢. Cost

ALSO ACCEPTABLE—CONT'D

- per oz. dry content, 11.2¢. Small size, 10¢. Cost per oz. dry content, 14.9¢.
- Ivory** (Procter & Gamble Co., Cincinnati). 24¢. Cost per oz. dry content, 12.6¢.
- Gillette** (Gillette Safety Razor Co., Boston). 24¢. Cost per oz. dry content, 12.8¢. High free acid content.
- Lifebuoy** (Lever Bros. Co., Cambridge, Mass.). Large size, 23¢. Cost per oz. dry content, 13¢. Small size, 10¢. Cost per oz. dry content, 15.7¢. High free acid content.
- Fitch's** (F. W. Fitch Mfg. Co., Des Moines, Ia.). Large size, 25¢. Cost per oz. dry content, 13.1¢. Small size, 10¢. Cost per oz. dry content, 15.7¢. High free acid content.
- Kleenzo** (United Drug Co., Boston). 25¢. Cost per oz. dry content, 13.3¢.
- McKesson's** (McKesson & Robbins, Inc., NYC). 23¢. Cost per oz. dry content, 13.6¢. High free acid content.
- Scientific** (The De Pree Co., Holland, Mich.). 39¢. Cost per oz. dry content, 13.6¢. High percentage of alcohol insoluble material.
- Strobak** (Strobak Laboratories, Inc., NYC). 29¢. Cost per oz. dry content, 14.4¢.
- Mennen** (Mennen Co., Newark, N. J.). Large size, 39¢. Cost per oz. dry content, 14.7¢. Small size, 10¢. Cost per oz. dry content, 21.8¢.
- Williams Luxury** (J. B. Williams Co., Glastonbury, Conn.). Large size, 39¢. Cost per oz. dry content, 14.7¢. Small size, 10¢. Cost per oz. dry content, 15.7¢.
- Squibb** (E. R. Squibb & Sons, NYC). Large size, 39¢. Cost per oz. dry content, 15.1¢. Small size, 10¢. Cost per oz. dry content, 18.8¢. High free acid content.
- Stag** (Langlois, Boston). 25¢. Cost per oz. dry content, 16.1¢.
- Ingram's** (Bristol-Myers Co., NYC). Large size, 29¢. Cost per oz. dry content, 18.2¢. Small size, 10¢. Cost per oz. dry content, 23.6¢.
- Listerine** (Lambert Pharmacal Co., St. Louis). Large size, 33¢. Cost per oz. dry content, 19¢. Small size, 10¢. Cost per oz. dry content, 20.2¢.
- Swav** (Norwich Pharmacal Co., Norwich, N. Y.). 35¢. Cost per oz. dry content, 19.4¢. High percentage of alcohol insoluble material.
- Rexall** (United Drug Co., Boston). 25¢. Cost per oz. dry content, 20.2¢.

ALSO ACCEPTABLE—CONT'D

Woodbury (John H. Woodbury, Inc., Cincinnati). Large size, 29¢. Cost per oz. dry content, 21¢. Small size, 10¢. Cost per oz. dry content, 23.6¢. High free acid and alcohol insoluble material.

Cuticura (Potter Drug & Chemical Co., Malden, Mass.). Small size, 10¢. Cost per oz. dry content, 21.6¢. Large size, 33¢. Cost per oz. dry content, 23.4¢.

Coty (Coty, Inc., NYC). 50¢. Cost per oz. dry content, 22.4¢. High free acid content.

Yardley (Yardley & Co., Ltd., London and NYC). 50¢. Cost per oz. dry content, 27.7¢.

Mi-31 (United Drug Co., Boston). 50¢. Cost per oz. dry content, 28.3¢.

Pinaud (Pinaud, Inc., NYC). 39¢. Cost per oz. dry content, 28.3¢.

Fougére Royale (Houbigant, Inc., NYC). 50¢. Cost per oz. dry content, 29.4¢.

Lenthéric (Lenthéric, Inc., NYC). 50¢. Cost per oz. dry content, 34.4¢. High free acid content.

NOT ACCEPTABLE

All-American (American Pharmaceutical Co.). 29¢. Cost per oz. dry content, 17.8¢. Cream consistency hard. Showed excessive cream discoloration due to container reaction.

Johnson & Johnson (Johnson & Johnson). 33¢. Cost per oz. dry content, 17¢. Contained free alkali and excessive alcohol insoluble material.

BRUSHLESS (Non-Lathering) CREAMS

All brands were packed in collapsible tubes, except where otherwise noted.

BEST BUYS

Latherite (Trade Laboratories, Inc., Newark, N. J.). 39¢. Cost per oz. dry content, 7.9¢. Packed in jar. High fatty acid content.

Dabon (Dr. Brown's Laboratories, Brooklyn, N. Y.). 39¢. Cost per oz. dry content, 9¢. Packed in jar. High fatty acid content.

Gillette (Gillette Safety Razor Co., Boston). 10¢. Cost per oz. dry content, 9.8¢.

(Continued next page)

BEST BUYS—CONT'D

Macy's (R. H. Macy & Co., NYC). 15¢. Cost per oz. dry content, 10.5¢.

Sam's (Travis Distributing Co., NYC). 10¢. Cost per oz. dry content, 10.5¢. Low fatty acid content.

ALSO ACCEPTABLE

(In order of increasing cost per ounce of dry content)

Latherless (Trade Laboratories, Inc., Newark, N. J.). 10¢. Cost per oz. dry content, 13.8¢. High fatty acid content.

CD (Cooperative Distributors, NYC). 27¢. Cost per oz. dry content, 15.5¢. Packed in jars. Low fatty acid content.

Castillian (Castillian Products Corp., Hollywood, Cal.). 49¢. Cost per oz. dry content, 16.1¢. Misbranded: net weight not stated on label. Packed in jars.

Ward's Cat. No.—3902 (Montgomery Ward). 21¢ plus postage. Cost per oz. dry content, 16.3¢.

Barbasol (Barbasol Co., Indianapolis). Large size, 27¢. Cost per oz. dry content, 19.2¢. Small size, 10¢. Cost per oz. dry content, 39¢.

Ladd's (Hamilton Products Co., NYC). 25¢. Cost per oz. dry content, 19.7¢. High fatty acid content.

Old Smoothie (Knickerbocker Products, Holland, Mich.). 39¢. Cost per oz. dry content, 20.3¢. Packed in jars. High fatty acid content.

Stag (Langlois, Inc., Boston). 33¢. Cost per oz. dry content, 21.7¢. High fatty acid content.

Craig-Martin (Comfort Mfg. Co., Chicago). Sold at Woolworth's. 10¢. Cost per oz. dry content, 21.8¢.

Palmolive (Colgate-Palmolive-Peet Co., Jersey City, N. J.). Large size, 40¢. Cost per oz. dry content, 22¢. Small size, 10¢. Cost per oz. dry content, 29.8¢. High fatty acid content.

No-Nix (Norwich Pharmacal Co., Norwich, Conn.). 29¢. Cost per oz. dry content, 22.4¢.

Colgate (Colgate-Palmolive-Peet Co.). Large size, 40¢. Cost per oz. dry content, 22.9¢. Small size, 10¢. Cost per oz. dry content, 29.4¢. High fatty acid content.

Zip (Jordeau, Inc., NYC). 42¢. Cost per oz. dry content, 23¢. High fatty acid content.

Brisk (Armand Co., Des Moines, Ia.). 49¢. Cost per oz. dry content, 23.6¢. Packed in jars. Low fatty acid content.

Zephyr (De Pree Co., Holland, Mich.). 37¢. Cost per oz. dry content, 23.7¢. Packed in jars.

ALSO ACCEPTABLE—CONT'D

- Listerine** (Lambert Pharmacal Co., St. Louis). Large size, 23¢. Cost per oz. dry content, 24.5¢. Small size, 10¢. Cost per oz. dry content, 28¢.
- Mollé** (Mollé Co., Bedford, Ohio). Large size, 32¢. Cost per oz. dry content, 25.1¢. Small size, 10¢. Cost per oz. dry content, 35.3¢.
- Lather-Kreem** (A. J. Krank Co., St. Paul, Minn.). Large size, 23¢. Cost per oz. dry content, 26.4¢. Small size, 10¢. Cost per oz. dry content, 27.4¢.
- Shavami** (McKesson & Robbins, Inc., NYC). 39¢. Cost per oz. dry content, 26.6¢. High fatty acid content.
- Mennen** (Mennen Co., Newark, N. J.). Large size, 39¢. Cost per oz. dry content, 29.4¢. Small size, 10¢. Cost per oz. dry content, 41¢.
- Williams Glider** (J. B. Williams Co., Glastonbury, Conn.). Small size, 10¢. Cost per oz. dry content, 31.8¢. Large size, 39¢. Cost per oz. dry content, 34.2¢. Low fatty acid content.
- Noxzema** (Noxzema Chemical Co., Baltimore). 29¢. Cost per oz. dry content, 32.1¢.
- Burma Shave** (Burma-Vita Co., Minneapolis, Minn.). Large size, 31¢. Cost per oz. dry content, 33¢. Small size, 10¢. Cost per oz. dry content, 35.5¢. Low fatty acid content.
- Squibb** (E. R. Squibb & Sons, NYC). 17¢. Cost per oz. dry content, 33.7¢. High fatty acid content.
- Frostilla** (Frostilla Co., Inc., Elmira, N. Y.). 45¢. Cost per oz. dry content, 34.7¢.
- Prep** (Mark Allen & Co., Detroit). 29¢. Cost per oz. dry content, 37.2¢. Packed in jars.
- Euxesis** (Aimée Lloyd & Co., England). 59¢. Cost per oz. dry content, 78¢. Low fatty acid content.

SKIN BLEACHES

Many skin bleaches contain salicylic acid or related compounds. They may be irritating when improperly used, or when used by persons sensitive to these substances.

As a result of stringent regulations of the present Food and Drug Law, the once popular mercury bleaches are seldom found on the market. Bichloride of mercury, which is effective but dangerous, is prohibited in commercial skin bleaches in

concentrations higher than 2%. Ammoniated mercury may still be used in amounts up to 5%, but clear warnings about possibilities of irritation, permanent skin discoloration and poisoning must appear on the label.

A mild surface bleach, such as hydrogen peroxide (3% reinforced with a few drops of ammonia), while less effective, is far safer than either the salicylic acid or the mercury type.

Freckle removers are merely skin bleaches intended to make freckles less conspicuous.

STOCKING SAVERS

Various kinds of preparations designed to make stockings last longer are available. One type, a stocking rinse in which you dip your stockings after washing and then allow it to dry on the hose, is practically worthless. Made of a soluble salt and organic lathering agent, these rinses wash out, so that they must be used every time the stockings are washed. The purpose of the rinses is to give hose a light protective coating so that they will be less apt to snag, and to fix the weave so that the stockings won't run if snags do occur. Tests made by CU showed, however, that the rinses won't do either thing effectively and, on the whole, they are not worth even the small investment involved.

There are several products intended to protect stockings against wear at particularly vulnerable points, such as the heel and toe. Suede cloth inserts for the heel of a shoe are designed to prevent the shoe from rubbing against the stocking at the heel. Perfumed cakes of paraffin are sold to protect the heel and toe. The paraffin is rubbed onto the stocking at these spots and provides a smooth protective coating. Common kitchen paraffin or a candle is just about as effective and much cheaper.

The protection afforded by any of these products is small. Inserts for the shoes are most effective, but they provide protection only for the heel.

To stop runs after they have occurred, special "run stop" preparations can be used. Those consisting of clear lacquer work fastest and do the neatest job. Clear nail polish or rubber cement can be substituted for lacquer and is cheaper.

From the *Reports*, September 1941.

SUNBURN PREVENTIVES

A sunburn preventive forms a chemical screen which cuts out some of the burn-producing rays of sunlight. Since burn-producing and tan-producing rays are impossible to separate, the sunburn preventive must necessarily eliminate some of the tan-producing rays.

Vertical rays (as at noon) cause more severe burning or tanning than slanting ones; burning is more severe at high altitudes than at low. Smoky skies can absorb much of the burning (ultra-violet) rays, but brightness of the sun alone does not determine the intensity of ultra-violet rays. Light reflected from sand and water and the diffused light of a misty day can produce severe burns.

The best sunburn preventive cannot be a complete shield against the sun's burning rays. Neither does a beach umbrella or hat give complete protection, for these are no safeguard against reflected rays. To give maximum protection, a lotion must be reapplied every hour or so, and the coating must be renewed after every swim. Take care to apply the lotion evenly, or you will be left with a mottled tan.

Sunburn preventives are not sunburn cures. Once you have the burn, the preventive does no good.

There are three general types of sunburn preventives available.

The greaseless variety contains a sun-screen chemical in a base which evaporates soon after application, leaving an invisible protective film on the skin.

Preventives in which the screen is dissolved in oil are less popular. They may feel uncomfortable on the skin and tend to attract particles of sand and dust. However, the emollient effect may benefit dry skin.

Emulsions—thick, creamy lotions—have an emollient effect without being sticky. They are easy to apply evenly and, after some rubbing, leave very little greasy residue on the skin.

The brands marked "Good Protection" were found in laboratory tests to filter out practically all the burning rays; those marked "Partial Protection" allowed some penetration, but were effective for persons whose skins are not over-sensitive and who wish to acquire a slow tan. Emulsions are listed separately. They all appeared to give good protection.

From the *Reports*, July 1942.

(Continued next page)

GOOD PROTECTION

(In order of price within each classification)

• LIQUIDS

Florida Sun Tan Oil (Vale Co., NYC). 25¢ for 3 oz.; cost per oz., 8.3¢. Oil. Dark color may stain fabric.

Basking (Algaeloin Corp., NYC). 49¢ for 3 oz.; cost per oz., 16.3¢. Greaseless.

Noil (Norwich Pharmacal Co., Norwich, N. Y.). 29¢ for 1½ oz.; cost per oz., 19.3¢. Greaseless.

• EMULSIONS

Noburn (Chemical Specialties Co., NYC). 29¢ for 4 oz.; cost per oz., 7.3¢. Very heavy emulsion. (Not the same as *Noburn Sun Tan Oil* listed under "Inadequate Protection.")

C D Anti-Sun Lotion (Cooperative Distributors, NYC). 30¢ for 4 oz.; cost per oz., 7.5¢. Heavy emulsion.

Macy's Sunbreaker Lotion (R. H. Macy & Co., NYC). 49¢ for 4 oz.; cost per oz., 12.3¢. Very heavy emulsion.

Noxzema's Suntan Lotion (Noxzema Chemical Co., Baltimore). 55¢ for 3 oz.; cost per oz., 18.3¢. Medium-heavy emulsion.

Jergen's Suntan Cream (Andrew Jergen Co., Cincinnati). 10¢ for ½ oz.; cost per oz., 20¢. Light emulsion.

Marie Earle Sun Tan Lotion (Marie Earle, NYC). \$1 for 4.7 oz.; cost per oz., 21.2¢. Heavy emulsion.

Mulsitan (R. L. Watkins Co., NYC). 49¢ for 2 oz.; cost per oz., 24.5¢. Ingredients of emulsion tend to separate.

Quinlan Sunburn Lotion (Kathleen Mary Quinlan, Inc., NYC). \$1 for 4 oz.; cost per oz., 25¢. Medium-heavy emulsion.

Sunplexion Lotion (Letheric, NYC). 50¢ for 2 oz.; cost per oz., 25¢. Heavy emulsion.

Smoothtan (Charles of the Ritz, NYC). \$1 for 4 oz.; cost per oz., 25¢. Medium-heavy emulsion.

Sombrero Sunshade (Ross & Rowe Laboratories, NYC). 50¢ for 2 oz.; cost per oz., 25¢. Very heavy emulsion.

Elmo Sunburn Cream (Elmo Sales Corp., Philadelphia). \$1 for 4 oz.; cost per oz., 25¢. Contents not stated on label. Light emulsion.

Coty's Suntan Lotion (Coty, NYC). \$1 for 3¾ oz.; cost per oz., 26.6¢. Heavy emulsion.

GOOD PROTECTION—CONT'D

Translucid Sun Filter Lotion (Houbigant, NYC). \$1 for 3½ oz.; cost per oz., 28.6¢. Medium-heavy emulsion.

Protective Lotion (Daggett & Ramsdell, NYC). \$1 for 3.5 oz.; cost per oz., 28.6¢. Medium-heavy emulsion.

Dorothy Gray (Dorothy Gray, Ltd., NYC). \$1 for 3¼ oz.; cost per oz., 30.8¢. Heavy emulsion.

Du Barry Sun Screen Lotion (Richard Hudnut, NYC). \$1 for 3 oz.; cost per oz., 33.3¢. Heavy emulsion.

Germaine Monteil Tan-Pruf Lotion (Germaine Monteil Cosmetiques Corp., NYC). \$2 for 4 oz.; cost per oz., 50¢. Very heavy emulsion.

PARTIAL PROTECTION

The following products gave only slightly less protection than those listed above.

• LIQUIDS

Macy's Unscented Suntan Oil (R. H. Macy & Co., NYC). 69¢ for 6 oz.; cost per oz., 11.5¢.

Gypsy Tan (United Drug Co., Boston). 49¢ for 4 oz.; cost per oz., 12.3¢. Oily.

Liquid Sunshine (Helena Rubinstein, Inc., NYC). \$1.50 for 3½ oz.; cost per oz., 41.7¢. Greaseless.

The following brands gave somewhat less protection, than those listed above, but still gave an appreciable amount.

Elizabeth Post Sun Tan Oil (Elizabeth Post, NYC). 10¢ for 3 oz.; cost per oz., 3.3¢.

Tropic Tan Sun Tan Oil (Cosmetic Specialties Co., Hollywood). 19¢ for 3 oz.; cost per oz., 6.3¢.

Boyer Sun Tan Oil (The Society Parfumeur, Paris). 59¢ for 5½ oz.; cost per oz., 10.7¢. Contents not stated on label.

Skol (Skol Co., Inc., NYC). 49¢ for 3¼ oz.; cost per oz., 15.1¢. Contained tannic acid and other astringents which may have value. Greaseless.

Sunfoe Lotion (Schieffelin & Co., NYC). 49¢ for 3 oz.; cost per oz., 16.3¢. Greaseless.

Nutan Lotion (Letheric, NYC). 50¢ for 2 oz.; cost per oz., 25¢. Greaseless.

Hudnut Sun Tan Oil (Richard Hudnut, NYC). 75¢ for 3 oz.; cost per oz., 25¢. Oily.

Rubinstein Sunburn Oil (Helena Rubinstein, NYC). \$1 for 3 oz.; cost per oz., 33.3¢.

(Continued next page)

INADEQUATE PROTECTION

The following were judged to offer inadequate protection against sunburn.

Miami Tan Sun Oil (Hampden, NYC). 10¢ for 1½ oz.; cost per oz., 5.7¢.

Plat-Num Sun Tan Oil (A. Sartorius & Co., NYC). 10¢ for 1½ oz.; cost per oz., 6.7¢.

Protan (Chemical Specialties Co., NYC). 29¢ for 4 oz.; cost per oz., 7.3¢. Contained tannic acid and other astringents which may have some value. Greaseless.

Noburn Sun Tan Oil (Chemical Specialties Co.). 29¢ for 4 oz.; cost per oz., 7.3¢. (Not the same as Noburn, listed under "Good Protection.")

Betty Woods Sun Tan Oil (Betty Woods, Hollywood). 49¢ for 6 oz.; cost per oz., 8.2¢.

Xpose Sun Tan Liquid (Walgreen Co., Chicago). 50¢ for 5 oz.; cost per oz., 10¢. Greaseless.

Gypsy Tan Lotion (United Drug Co., Boston). 49¢ for 4 oz.; cost per oz., 12.3¢. Greaseless.

Gaby Suntan Lotion (Gaby, Inc., Philadelphia). 50¢ for 4 oz.; cost per oz., 12.5¢. Greaseless.

Red Cross Sun Tan Oil (Red Cross Drug Store, Miami). 50¢ for 4 oz.; cost per oz., 12.5¢.

Noxzema Suntan Oil (Noxzema Chemical Co., Baltimore). 23¢ for 1½ oz.; cost per oz., 15.3¢.

Dorothy Gray Beach Oil (Dorothy Gray, Ltd., NYC). \$1 for 6 oz.; cost per oz., 16.7¢.

Norwich Sun Tan Oil (Norwich Pharmacal Co., Norwich, N. Y.). 29¢ for 1½ oz.; cost per oz., 19.3¢.

Smoothtan (Charles of the Ritz, NYC). \$1 for 4 oz.; cost per oz., 25¢. Oily.

Coty Suntan Oil (Coty, NYC). \$1 for 3½ oz.; cost per oz., 26.7¢.

Huile Sun Oil (Letheric, NYC). \$1.25 for 4 oz.; cost per oz., 31.3¢.

Germaine Monteil Suntan Oil (Germaine Monteil Cosmetiques Corp., NYC). \$1.25 for 2 oz.; cost per oz., 62.5¢.

Ayer Suntan Lotion (Harriet Hubbard Ayer, NYC). \$1.50 for 2 oz.; cost per oz., 75¢. Greaseless.

TALCUM POWDER

Whether you pay less than a penny or more than a quarter per ounce for talcum powder, the product is much the same in composition and action—a soothing, cooling material intended to prevent chafing.

The main ingredient of talcum powder is talc, a fine white powder which can be applied easily and smoothly to the skin. Perfume is added and serves as a very slight and temporary mask for body odor. One or more of the following ingredients may also be present:

Zinc stearate or some similar compound is used to make powder stay on longer. It may be scarce because of war priorities.

Boric acid is frequently included in a talcum powder formula for its antiseptic action. At best, however, this effect is slight.

Olive oil is sometimes incorporated in baby powders. It is useful in that it tends to make the powder "waterproof," so that moisture will roll off rather than become absorbed.

Starch has just the opposite effect, tending to absorb large quantities of water. After the moisture is absorbed and has dried, the starch remains caked on the skin. In addition, starch is a food for bacteria. Another possible objection is that some people are allergic to starch. All these facts make powder containing a appreciable amount of starch "Not Acceptable."

After-shaving powders differ only in that they are slightly tinted and are less strongly scented than most others.

Since quality differences are slight, talcum powders should be bought on the basis of price, qualified by your own preference as to fragrance.

The "Acceptable" brands listed here are the least expensive ones found in a total of 47 brands tested. Brands listed below as retailing at 10¢ are generally available at 5-&-10-cent stores. Although prices may have changed somewhat since these ratings were compiled, it is unlikely that any considerable quality deterioration has taken place. If the price of some brand has risen out of proportion to price increases of other brands, that brand's rating will be lowered.

Unless otherwise stated all brands are sold in shaker boxes.
From the *Reports*, June 1940.

(Continued next page)

ACCEPTABLE*(In order of increasing cost per ounce)*

Floral Fragrance Rose Talc (Goodman Chemical Co., Brooklyn). 13-oz. box, 10¢; cost per oz., 0.8¢.

Lander Rose Talcum (Lander Co., NYC). 13-oz. box, 10¢; cost per oz., 0.8¢.

Southern Flowers Talc (Vi-Jon Laboratories, Inc., St. Louis). 13-oz. box, 10¢; cost per oz., 0.8¢.

Lavender and Pine (Lander Co.). 7-oz. box, 10¢; cost per oz., 1.4¢.

Fragrance of Sweet Pea Talc (Lorr Laboratories, Paterson, N. J.). 7-oz. box, 10¢; cost per oz., 1.4¢.

Sweet Pea Talc (Lander Co.). 7-oz. box, 10¢; cost per oz., 1.4¢.

Lilac and Roses (Lander). 7-oz. box, 10¢; cost per oz., 1.4¢.

Woodmere Fragrance Dusting Powder (Laverne, NYC). 5-oz. box, 10¢; cost per oz., 2.0¢. Packed in non-shaker package.

Irresistible Talc (Irresistible, Inc., Jersey City, N. J.). 5-oz. box, 10¢; cost per oz., 2.0¢.

Poudre Blue Waltz (Blue Waltz, Jersey City, N. J.). 5-oz. box, 10¢; cost per oz., 2.0¢.

Macy's Lilac Scented Talcum (R. H. Macy & Co., NYC). 1-lb. box, 33¢; cost per oz., 2.1¢.

Ashley's Lavender Talc (Ashley, NYC). 4½-oz. box, 10¢; cost per oz., 2.2¢.

Olde Lavender (Laverne). 4-oz. box, 10¢; cost per oz., 2.5¢.

CD Talcum Powder (Cooperative Distributors, Inc., NYC). 1-lb. box, 45¢ plus postage; cost per oz., 2.8¢.

Elizabeth Post Sweet Pea Bouquet Talc (Elizabeth Post, NYC; distrib., Kress Stores). 3½-oz. box, 10¢; cost per oz., 2.9¢.

Laverne Apple Blossom Talcum (Geo. W. Button Corp., NYC). 3-oz. box, 10¢; cost per oz., 3.3¢.

Ward's Dusting Powder (Montgomery Ward). 8-oz. box, 29¢ plus postage; cost per oz., 3.6¢. Packed with puff in non-shaker package.

Air Float Rose Talc (Talcum Puff Co., NYC). 2¾-oz. box, 10¢; cost per oz., 3.6¢.

NOT ACCEPTABLE

Linit Powder (Corn Products Sales Co.). 3-oz. box, 10¢; cost per oz., 3.3¢. Contained starch.

NOT ACCEPTABLE—CONT'D

DuBarry Talc (Richard Hudnut). 4-oz. bottle, \$1; cost per oz., 25.0¢. Contained starch.

TOILET SOAPS

The basic ingredients of soap are cheap; it is produced by the action of an alkali (like lye) on an animal or vegetable fat. High prices do not buy superior soaps.

Price, quality and soap sizes have been frozen by OPA in an attempt to stop both open and hidden price rises. Scarcity is unlikely. Importation of coconut, barbassu and palm oil, which ordinarily constitute some 25% of the oils used in toilet soap, has been curtailed, and manufacturers must use substitutes, but no noticeable deterioration in quality is apt to result.

"Superfatted" soaps are less drying to some skins than ordinary soaps, but occasionally the free fatty acids they contain are irritating. In any case it is better for a dry skin to be cleansed with ordinary soap and then softened with a lubricating cream. Where even this causes excessive drying, dermatologists generally recommend the use of cold cream alone.

The term "Castile" has little significance now, although it originally referred to a soap with a pure olive oil base. "Hard water soap" once meant soap made primarily from coconut or palm-kernel oil, which is more efficient than ordinary soap in hard water or in cold water. But the term is now applied to so many different products that it means little. "Hard water soap" and "all water soap" are synonymous terms.

Transparent soaps have no special advantage in purity or quality.

Extraneous and valueless soap ingredients, sometimes present, include buttermilk, oatmeal, cucumber, etc. "Cresylic acids," contained in *Lifebuoy* and similar soaps should not be used regularly on the skin, according to some dermatologists. Investigators have found that no ordinary soaps have special germicidal properties. It is the accompanying scrubbing, along with the soap and water, which carry away the bacteria.

"Framed" soaps are made by running the liquid soap into molds and allowing it to harden in contact with air. They have high water content—up to 30%—when made, and usually cost less both to manufacturer and consumer than "milled" soaps. They are sometimes made "floating" by having air beaten into them before they harden.

(Continued next page)

Milled soaps are made by subjecting pulverized soap to great pressure, thus forming it into a hard cake. They contain no more than 10% water, are much harder and dissolve more slowly; hence they tend to be less wasteful.

Any soap is wasted if kept in a water-filled soap dish. Your soap dish should have a corrugated bottom, or better yet, holes which allow water to drain off.

The soaps were tested by CU to see whether they conformed to Federal specifications for water content, free alkali, fillers and other inactive ingredients. Since all brands tested were within the limits of purity outlined in government specifications, they are rated in terms of cost per pound of dry soap, excluding water and inert material. Those near the top of the list, at or below the prices given, may be considered the best values.

Prices vary considerably from place to place. You can sometimes make sizeable savings through soap "sales" and quantity buying. If you buy soap in quantity, unwrap the cakes and store them in a dry place. In this way excess moisture evaporates and the cake lasts longer.

From the *Reports*, October 1942.

ACCEPTABLE

(In order of increasing cost per lb. of dry soap—indicated in brackets)

Kirkman Beauty Bubbles (Colgate-Palmolive-Peet Co.). 10¢ for 3 cakes (16¢).

Colgate's Ajax Bouquet (Colgate-Palmolive-Peet Co.). 11¢ for 3 cakes (18¢).

Asco Hardwater (American Stores Co.). 13¢ for 3 cakes (20¢).

Ajax Floating (Colgate-Palmolive-Peet Co.). 13¢ for 3 cakes (19¢).

Kirkman Floating. 5¢ a cake (20¢).

Colgate's Floating. 11¢ for 2 cakes (20¢).

Eavenson's Bridal Bouquet (J. Eavenson & Sons). 4¢ a cake. (20¢).

Ivory (Procter & Gamble). 6¢ a cake (21¢).

Co-op Floating (National Co-operatives). 21¢ for 4 cakes (21¢).

Swift's Maxine Complexion Soap (Swift & Co.). 13¢ for 3 cakes (21¢).

ACCEPTABLE—CONT'D

- CD Blue Label-White Floating** (Co-operative Distributors, NYC). 9¢ a cake (21¢).
- Jergens Bouquet** (Andrew Jergen Co.). 17¢ for 4 cakes (22¢).
- Wrisley's Palm Oil** (Allen B. Wrisley Co.). 5¢ a cake (22¢).
- Swan** (Lever Bros.). 6¢ a cake (22¢).
- Ward's All Purpose** (Montgomery Ward & Co.). Cat. No. 4276. 59¢ a box of 12 plus postage (23¢).
- Kirk's Coco Hardwater Castile** (J. S. Kirk & Co.). 6¢ a cake (23¢).
- Woolworth's Lanolated Cold Cream Soap** (Woolworth Stores). 10¢ for 5 cakes (24¢).
- Colgate's Beauty White.** 7¢ a cake (24¢).
- Halesworth** (Hale Bros., San Francisco). 5¢ a cake (24¢).
- Big Bath** (Colgate-Palmolive-Peet Co.). 17¢ for 3 cakes (24¢).
- Williams Pine and Balsam** (J. B. Williams Co.). 4¢ a cake (24¢).
- Octagon White** (Colgate-Palmolive-Peet Co.). 5¢ a cake (25¢).
- Macy's Hard or Soft Water** (R. H. Macy & Co., NYC). 74¢ for a box of 12 cakes (25¢).
- Sears' LaDore Hard Water Cold Cream Soap** (Sears-Roe-buck). Cat. No. 4987. 21¢ for 4 cakes plus postage (25¢).
- Fine Art Complexion** (Armour & Co.). 5¢ a cake (25¢).
- Ward's Cold Cream Facial** (Montgomery Ward). Cat. No. 4246. 59¢ for box of 12, plus postage (25¢).
- Allure Complexion** (Kroger Grocery & Baking Co., Cincinnati). 5¢ a cake (25¢).
- Jergens Lilac.** 5¢ a cake (25¢).
- Kirkman's Complexion.** 5¢ a cake (26¢).
- Fairsex** (Colgate-Palmolive-Peet Co.). 5¢ a cake (26¢).
- Wrisley Pure Baby Castile.** 5¢ a cake (27¢).
- Sears' Gay** (Sears-Roebuck). Cat. No. 4986. 33¢ for 6 cakes plus postage (27¢).
- Sweetheart** (Manhattan Soap Co.). 19¢ for 4 cakes (27¢).
- Apple Blossom** (Colgate-Palmolive-Peet Co.). 17¢ for 3 cakes (27¢).
- Cologne Bouquet** (J. S. Kirk & Co.). 5¢ a cake (27¢).
- Gimbel's Hardwater** (Gimbel Bros., NYC). 69¢ for box of 12. (27¢).

(Continued next page)

ACCEPTABLE—CONT'D

- Aimcee Palm and Olive Oil** (Associated Merchandising Corp.¹). 69¢ for box of 12 cakes (27¢).
- Colgate's Jasmin.** 17¢ for 3 cakes (27¢).
- Hudso White Floating** (J. L. Hudson Co., Detroit). 29¢ for 4 cakes (28¢).
- Aimcee Hardwater.**¹ 79¢ for box of 12 cakes (28¢).
- Colgate's White Rose.** 17¢ for 3 cakes (28¢).
- Colgate's Gardenia.** 17¢ for 3 cakes (28¢).
- Colgate's Charmis.** 17¢ for 3 cakes (28¢).
- Gimbels White.** 69¢ for box of 12 (28¢).
- Colgate's Lilac Imperial.** 17¢ for 3 cakes (28¢).
- Colgate's Orchis.** 17¢ for 3 cakes (29¢).
- CD Fashion Cold Cream Soap** (Co-operative Distributor, NYC). 6¢ a cake (29¢).
- Colgate's Lily of the Valley.** 17¢ for 3 cakes (29¢).
- Gimbels Palm.** 69¢ for box of 12 (29¢).
- Williams Lavender.** 5¢ a cake (29¢).
- Colgate's Peter Pan.** 18¢ for 3 cakes (29¢).
- Colgate's Carnation.** 18¢ for 3 cakes (29¢).
- Colgate's Coleo.** 17¢ for 3 cakes (29¢).
- Penney's Cold Cream Hardwater** (J. C. Penney Stores). 29¢ for box of 6 (30¢).
- Jergens Transparent Violet.** 5¢ a cake (30¢).
- Colgate's Violet.** 18¢ for 3 cakes (30¢).
- Aimcee White Floating.**¹ 79¢ for box of 6 (30¢).
- Jesco White Floating** (J. Eavenson & Sons). 21¢ for 3 cakes (31¢).
- May Company's TMC** (May Co., Los Angeles). \$1.19 for box of 16 (31¢).
- Gayla Beauty Soap** (Allen B. Wrisley). 17¢ for 3 cakes (31¢).
- Faircrest Hardwater** (The Fair, Chicago). 7¢ a cake (31¢).
- Hudso Lilac.** 29¢ for 4 cakes (32¢).
- Co-op Pine Scented-Sauna** (National Co-operatives). 10¢ a cake (32¢).
- Bullock's** (Bullock's, Los Angeles). 90¢ for box of 15 (32¢).
- Co-op Palm and Olive Oil** (National Co-operatives). 6¢ a cake (32¢).
- Co-op Cold Cream** (Eastern Co-op Wholesale). 6¢ a cake (32¢).

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

- Aimcee Jasmin Bath Tablet.**¹ \$1.00 for box of 12 (32¢).
Fairy (Lever Bros. Co.). 5¢ a cake (32¢).
Lifebuoy Health Soap (Lever Bros. Co.). 7¢ a cake (32¢).
 See statement on *Lifebuoy* in text.
Hudso Hardwater. 29¢ for 4 cakes (33¢).
Lux (Lever Bros. Co.). 7¢ a cake (34¢).
Faircrest. \$1.00 for box of 12 (37¢).
Superfatted Facial (The Fair). \$1.00 for box of 12. (37¢).
Whelan's Salon Soap-Superfatted Lanolin (Whelan Drug Co.). 47¢ for box of 6 (39¢).
Faircrest Pine. 25¢ for 3 cakes (40¢).
Palmolive (Colgate-Palmolive-Peet Co.). 8¢ a cake (41¢).
Williams Lanolin. 9¢ a cake (41¢).
Ward's Olive Oil Castile. Cat. No. 4651. 34¢ for 4 cakes plus postage (42¢).
Macy's Apple Blossom. \$1.09 for box of 12 (42¢).
Emporium's Charm House—Carnation (The Emporium, San Francisco). 39¢ for 4 cakes (44¢).
Jergens San Remo Baby Castile. 10¢ a cake (44¢).
Woodbury Facial (Woodbury, Inc.). 5¢ a cake (44¢).
Colgate's Cashmere Bouquet—small size. 17¢ for 3 cakes (57.1¢). Large size, 27¢ for 3 cakes (45¢).
Camay (Procter & Gamble). 9¢ a cake. (48¢).
Stanley's Baby Castile (John T. Stanley & Co.). 10¢ a cake (48¢).
Aimcee Oval Bath.¹ 75¢ for box of 3 (49¢).
Jap Rose (Procter & Gamble). 10¢ a cake. (50¢).
Luxor's Savon Sachet-Apple Blossom (Armour & Co.). 25¢ a cake (56¢).
Walgreen's Leon Lorraine Superfatted Soap (Walgreen Drug Co.). 19¢ a cake (60¢).
Physicians' & Surgeons' (The Physicians' Supply Co.). 9¢ a cake (66¢).
Pear's Transparent (Lever Bros.). 13¢ a cake (71¢).
Hershey's Rose Garden (Hershey Estates). 40¢ for box of 3 (73¢).
Field's Floral (Marshall Field & Co., Chicago). 25¢ a cake (79¢).
Bathasweet Garden Bouquet (C. S. Welch Co.). 35¢ a cake (84¢).
Conti Castile (Conti Products Corp.). 10¢ a cake (92¢).

¹ For a list of AMC stores, see page 12.

(Continued next page)

ACCEPTABLE—CONT'D

- Genovese's Madre Baby Castile** (Genovese Drug Stores). 29¢ a cake (96¢).
- America Cold Cream-Almond** (Marshall Field & Co.). 50¢ a cake (\$1.17).
- Helena Rubinstein's Apple Blossom** (Helena Rubinstein, Inc.). 50¢ a cake (\$1.84).
- Spring Rain** (Charles of the Ritz, NYC). 50¢ a cake (\$1.88).
- Yardley Old English Lavender** (Yardley). 35¢ a cake (\$2.05).
- Frances Denney's Wild Rose** (Frances Denney). 50¢ a cake (\$2.26).
- Savon Fleurs D'Amour** (Roger & Gallet). 40¢ a cake (\$2.26).
- Cara Nome** (Langlois, Inc.). 50¢ a cake (\$2.49).
- Dorothy Gray** (Dorothy Gray). 75¢ a cake (\$2.51).
- Tweed** (Letheric, Inc.). 50¢ a cake (\$2.82).
- Elizabeth Arden June Geranium Bath** (Elizabeth Arden). \$1.00 a cake (\$3.23).
- Quelques Fleurs** (Houbigant). 50¢ a cake (\$3.47).

TOILET TISSUES

The quality of toilet tissue depends in general on the proper balance of strength, absorbency and softness of the paper. A stronger sheet, slightly less absorbent, is preferable to a highly absorbent one where strength has been sacrificed. In some cases, strength is obtained by using soft, highly absorbent sheets in double or triple layers.

Thickness, weight, strength, amount of moisture absorbed and speed of absorption were tested and given balanced consideration in the ratings.

Too rapid absorption is undesirable, since wet paper becomes weak. Absorption was measured before and after an "aging" process. This simulated the maximum deterioration in absorbency that storage for six months would cause.

None of the papers tested revealed splinters or serious impurities. Softness was not rated, because it is a matter of personal preference.

Unless otherwise indicated, prices given are for 1000 sheets, 4½ x 5 inches.

From the *Reports*, June 1942.

BEST BUYS

The following toilet tissues were considered to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Pacific Crepe Tissue. 4¢. 650 sheets. Cost per 1000 sheets, 6.1¢.

Princess. 8¢.

Sears' Challenge Cat. No.—841. 7¢ plus postage.

Red Cross. 6¢.

ACCEPTABLE

(In approximate order of quality without regard to price; unless otherwise noted, roll contains 1000 sheets, each 4½" x 5")

Pacific Crepe Tissue (Distrib. by A&P Stores). 4¢. 650 sheets. Cost per 1000 sheets, 6.1¢. A stronger, better and more absorbent paper than *Pacific Soft Crepe Paper*, also sold in the A&P stores.

Scot (Scott Paper Co., Chester, Pa.). 9¢.

Princess (American Stores Co., Philadelphia). 8¢.

Testmark (Tested Papers of America, Inc., Chicago). 10¢. Two-ply.

Aimcee (Associated Merchandising Corp., NYC¹). 15¢. Two-ply. 500 sheets.

CD (Cooperative Distributors, 114 E. 16 St., NYC). 10¢. 4½" x 4½". Two-ply.

Sitroux (Sitroux Co., Inc., NYC). 10¢. 900 sheets. 4½" x 4½". Cost per 1000 sheets, 11.1¢. Two-ply.

Lin-Tex (Regal Paper Co., Inc., Pulaski, N. Y.). 5¢. 650 sheets. 4½" x 4½". Cost per 1000 sheets, 7.7¢. Sides of roll not covered by wrapping, permitting soiling.

Soflin (National Retailer-Owned Grocers, Inc., Chicago). 8¢. 4½" x 4½".

Hazel (National Tea Co., Chicago). 5¢. 650 sheets. 4½" x 4½". Cost per 1000 sheets, 7.7¢.

Lexington (Bloomingdale's, NYC). 15¢. Two-ply.

Sears' Challenge Cat. No.—841 (Sears-Roebuck). 7¢ plus postage. 4½" x 4½".

Red Cross (A.P.W. Paper Co.). 6¢. 4½" x 4½".

Delsey (International Cellucotton Products Co., Chicago).

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

- 10¢. 720 sheets. Cost per 1000 sheets, 13.8¢. Two-ply.
- Hearn's Twin Tissue** (Hearn's, NYC). 12¢. 4½" x 4½". Two-ply.
- Plaza All-Purpose** (Bloomingdale's). 15¢. Two-ply.
- Co-op Facial Quality** (Eastern Cooperative Wholesale, Brooklyn, N. Y.). 9¢. 4½" x 4½". Two-ply.
- Supersoft** (Red & White Corp., Chicago). 3 rolls for 25¢.
- Colonial Tissue** (Pender Stores, Norfolk, Va.). 8¢. Two-ply.
- Co-op Red Label** (Eastern Cooperative Wholesale). 8¢.
- Venida** (Rieser Co., Inc., NYC). 10¢. 500 sheets at 4½" x 9", which is equivalent to 1000 sheets of 4½" x 4½", but the larger than average sheets tend to promote use of more paper. Three-ply.
- Sears' Approved** Cat. No.—837 (Sears-Roebuck). 3 rolls for 26¢ plus postage.
- Blue & White** (Red & White Corp.). 7¢. 4½" x 4½".
- Ward's Supreme** Cat. No.—4331 (Montgomery Ward). 6¢ plus postage. 650 sheets. 4½" x 4½". Cost per 1000 sheets, 9.2¢.
- Séda** (Gotham Tissue Corp., NYC). 10¢.
- Pacific Soft Crepe Paper** (Distrib. by A&P Stores). 4¢. 650 sheets. 4½" x 4½". Cost per 1000 sheets, 6.1¢. Inferior to A&P's *Pacific Crepe Tissue*, sold at the same price.
- Super-Soft** (Hearn's, NYC). 12¢.
- Waldorf** (Scott Paper Co.). 5¢. 650 sheets. Cost per 1000 sheets, 7.7¢.
- Co-op Blue Label** (Eastern Cooperative Wholesale). 6¢. 4½" x 4½".
- United Whelan** (Whelan Drug Co., Inc., NYC). 5¢. 600 sheets. 4½" x 4½". Cost per 1000 sheets, 8.3¢. A heavier, thicker, and slightly stronger sheet than *United Cross* below, but with much poorer absorptive qualities.
- Ward's Standard Quality** Cat. No.—4333 (Montgomery Ward). 3 rolls for 14¢, plus postage. 650 sheets. 4¼" x 4½". Cost per 1000 sheets, 7.7¢.
- Macy's Duosoft** (R. H. Macy Co., NYC). 15¢. Two-ply.
- Richmond** (First National Stores, Inc., Boston). 5¢. 650 sheets. Cost per 1000 sheets, 7.7¢.
- Soft Spun** (Stevens & Thompson Paper Co., Greenwich, N. Y.). 9¢. 4½" x 4½".
- United Cross** (Whelan Drug Co., Inc.). 8¢. Number of sheets

ACCEPTABLE—CONT'D

- not stated on label; approximate count, 900. $4\frac{1}{2}'' \times 4\frac{1}{2}''$. Cost per 1000 sheets, 8.8¢.
- Ward's Deluxe** Cat. No.—4334 (Montgomery Ward). 10¢. Two-ply.
- Gimbel's** (Gimbel Bros., NYC). 8¢.
- Color-Tex** (S. S. Kresge Stores, NYC). 8¢. Number of sheets not stated on label; approximate count, 600. Cost per 1000 sheets, 13.3¢. Sides of roll not covered by wrapping, permitting soiling.

NOT ACCEPTABLE

The following brands were rated "Not Acceptable" because they showed poor strength and poor absorptive qualities.

- Hearn's Blue Diamond** (Hearn's). 10¢. $4\frac{1}{2}'' \times 4\frac{1}{2}''$. Tests now show a general deterioration in quality.
- Herald Square** (R. H. Macy & Co.). 10¢.
- Texlin** (Regal Paper Co., Inc.). 10¢. 750 sheets. Cost per 1000 sheets, 13.3¢. Sides of roll not covered by wrapping.
- Petal Soft** (Barclay Tissue Corp.). 10¢. $4\frac{1}{2}'' \times 4\frac{1}{2}''$. Two-ply.
- Endura** (Bloomingdale's). 10¢. $4\frac{1}{2}'' \times 4\frac{1}{2}''$.
- Planet** (Biltmore Paper Co.). 7¢. $4\frac{1}{2}'' \times 4\frac{1}{2}''$.

TOOTH BRUSHES

Although the old maxim, "a clean tooth never decays," is no longer generally accepted by the dental profession, it is certain that proper tooth brushing can be of aid in preventing and curing certain diseases of the gums and in helping prevent tooth decay.

There is difference of opinion as to whether a dentifrice is necessary. The consensus is that it may help the brush somewhat to clean the teeth, and that it has a pleasant taste and odor, which makes the whole process more enjoyable and hence more apt to be done, but that it cannot prevent or cure gum disease or prevent decay (see Dentifrices, page 193).

After brushing, rinse the mouth vigorously, to remove any particles dislodged by brushing. Dental floss, used once a day, will remove particles which brush and mouthwash have failed to remove. Pass an inch or so of the floss between each pair of teeth, holding it tightly against one tooth, so as to avoid snapping the floss against the gum.

(Continued next page)

Use a brush with a straight handle, and tufts of equal length. The bristles should be cut so that each tuft tapers to a point. Spaces between the tufts should be slightly less than the widths of the tufts themselves.

Recommended brushes for adults are made with three rows, each with five or six tufts. Suitable brands include *Butler*, *Masso*, *Calsodent*, *Squibb* and similar types.

Nylon and Exton bristles are not considered quite so good as natural bristle brushes, but the latter are increasingly difficult to obtain. If you can't find the recommended style in a natural bristle brush, you will have to make the best of synthetic fibers, but be sure that the brush is made as specified above.

Dentists do not agree as to the advisability of hard bristles, but the consensus favors a medium bristle brush. It will keep the teeth clean and give the gums sufficient massage without the danger of injuring the gums. Soft or poor quality bristles soon lose their resiliency and become inefficient. Brushes with curved surfaces, or with one or more extra-long tufts, are not generally suitable.

Electrically driven brushes should not be used; even at best they can brush teeth no more effectively than the hand manipulated brushes.

For a description of proper brushing technique, see the *Reports*, March 1941.

Remember that the value of a product, whether it is a small private brand or a major nationally advertised brand, may change, and without any notice to the buyer. Substitutions of cheaper materials and increases in prices, particularly in these times, may alter relative ratings. The Buying Guide cannot record these changes; but frequently they will be covered in the regular monthly issues. Be sure to consult coming issues of the Reports for new ratings. Make sure, before any important purchase, that there are no more recent ratings of the product in the Reports.

Household Equipment and Supplies

Housefurnishings went up 12% in 1942, most of the increase taking place before the General Maximum Price Regulation was put into effect. Most articles are still available (November, 1942) although the production of furniture and upholstered equipment containing metal has been cut off completely. Furniture manufacturers are using wood as a substitute for steel springs and other metal parts. But some common woods will no longer be available.

Rugs are still around but carpet wool is now scarce and rugs using part wool and part rayon are not entirely satisfactory. Domestic china and earthenware are still to be gotten, but imported stuff has become a rarity. Cutlery production is being restricted and kitchen gadgets made of metal are no longer being manufactured.

Manufacture of major electrical appliances for civilian use has ceased. No radios, refrigerators and appliances will be available after the limited stocks are exhausted. It is becoming difficult to secure parts and repair service.

Production of non-electric stoves and ice boxes may illustrate a trend in the manufacture of civilian goods. The output is limited to lightweight "victory models" concentrated in selected plants.

BEDSPRINGS AND MATTRESSES

Try to make your old bedsprings and mattresses last until the war is over, unless you are able to find new ones that were manufactured before the curtailment on metal for bedding went into effect. At present, bedsprings are being made of combinations of wood and metal, or entirely of wood. All of these are in an experimental stage, and are probably not a safe investment.

The mattresses being manufactured for civilian use are mainly of cotton felt. Innerspring mattresses are not being made at all, and hair mattresses are exceedingly scarce. Most

of the domestic cattle hair is being used in bedding for the armed forces, and lack of shipping space has sharply curtailed the supply of South American horsehair.

Grades of cotton felt depend on the lengths of the cotton fibers which are felted together and on the amount of impurities (sand, grit, grease, etc.) present. Better grades of cotton felt mattresses are made from long staple cotton or first-run linters, but there is a shortage of these. Don't buy *unfelted* cotton mattresses.

Most states have laws requiring labels on bedding and sterilization permits for use of second hand material. Where there is no guarantee printed on a tag fastened to the mattress, consumers should demand a *written* guarantee from the dealer that the contents are new and clean.

Your springs and mattresses can often be made nearly as good as new at relatively small cost. Often an uncomfortable innerspring mattress or bedspring merely needs to have its springs tied. If you have a good quality hair mattress that has lost its resilience or has become "lumpy," for \$8 or so (depending on the size of the mattress) you can have it cleaned, sterilized and remade, and the result will probably be a far better mattress than is being manufactured today.

BLACKOUT CURTAINS

Blackout curtains must not be confused with air-raid curtains. Blackout curtains will not protect a room from flying glass or shrapnel. Curtains for such purposes are available, but they are very expensive.

CU examined blackout curtains for opacity, ease in mounting, removing and storing, and resistance to cracks and tears.

If your windows must be blacked out frequently, you will want a fairly strong curtain that can be installed permanently. Such a curtain costs from \$1 to \$5. For an occasional blackout, a suitable curtain can be had for much less.

Most types come in either opaque paper or impregnated cloth. Paper is better than cheap impregnated cloths and with normal care will last a long time. But if you can pay as much as \$3, you can get a superior quality impregnated cloth that will give excellent service.

Be sure to buy your curtains large enough so that they will extend from six to twelve inches beyond the window pane on

all four sides. Spring clips can be fixed to the sides of the window, and slats of wood can be inserted to prevent light from leaking through. Three inch strips of opaque paper pasted on the edges of the windowpanes serve the same purpose.

There are various ways of mounting blackout curtains. They can be tacked or hooked to the window casement at top and bottom, or mounted on rods and then tied or hooked to the top and bottom of the casement. For more frequent use, a spring roller type, permanently attached, is preferable. A square or round rod is stronger than a thin slat; if you use the slat, be sure that it is thick enough to be rigid. It is better to have the curtain pasted or stapled to the rods than sewed, because sewing threads weaken the material at the point of greatest strain.

Curtains equipped with a spring roller (like an ordinary window shade) or designed somewhat like a venetian blind are particularly useful for frequent blackouts, because they can be rolled up and left at the window. Curtains that have to be stored should be put in an accessible place where they will not be torn or crushed. If your windows are of different sizes, the curtains should be clearly marked for the correct window.

Cellar windows or skylights can be blacked out with sheets of cardboard, black on one side and white on the other, cut to the correct size and pasted directly on the window pane.

Whatever type curtain you buy, be sure it has been treated with a flame-proof compound; this protection adds little or nothing to the cost.

Ex mine your curtains regularly and repair worn spots at once. Keep a sheet of opaque paper on hand for patches. Cut a patch larger than the tear or hole and attach it with rubber cement or some other flexible cement (see p. 275 for buying advice on glues).

From the *Reports*, July 1942.

CAN OPENERS

If you need a can opener this year, you may have to take whatever style you can find, but in case you have your choice of several types, the following information will help you to make a selection.

(Continued next page)

Mechanical can openers are generally superior to the old-fashioned knife type, which is difficult to use and the cause of many a cut hand. Mechanical ones range in price from 10¢ to \$2, and the basic design of most is the same.

A good can opener should be durable, safe, easy to use and so constructed that, in cutting, a minimum amount of metal slivers are deposited in the can. It should open all types of cans—round, square, and beadless (evaporated-milk cans). For the last only the *Edlund* models—of those tested—will work.

The cheapest are the hand types, generally costing from 10¢ to 50¢. Because of their low cost they may be good buys. But the best types are those which can be mounted on wall or table.

None of the openers tested opened all types of cans with satisfactory efficiency. The *Edlund* was most generally useful.

From the *Reports*, March 1939. Ratings are based on 1939 tests; prices are as of October 1941.

BEST BUYS

Smooth-Cut (Regina Corp., Rahway, N. J.). \$1.80. Wall type. Good on square cans. Replaceable blade.

Dazey De Luxe (Dazey Churn & Mfg. Co., St. Louis). \$1.79. Wall type. Opened square cans, but not satisfactorily, since it cut below the bead of the can top.

Vaughan's Safety Roll, Jr. (Vaughan Novelty Mfg. Co., Chicago; 5-&-10-cent stores). 10¢. Hand type. Some samples deposited appreciable amounts of metal shavings. A "Best Buy" in view of its low price.

ALSO ACCEPTABLE

(In order of quality without regard to price)

Edlund Models 4T and 4W (Edlund Co., Burlington, Vt.). \$1.41 nickel, \$1.64 chrome. Table and wall models. Good on square cans.

Vaughan's Safety Roll DeLuxe Model 330. \$1.45. Wall type. Replaceable blade. Poor on square cans.

Dazey Junior. 89¢. Wall type.

NOT ACCEPTABLE

A & J Miracle. 10¢. Pliers type. Cutting edge dulled quickly.

Dazey Senior. \$1.49. Wall type. Deposited excessive metal.

Edlund Junior. No. 5. 50¢. Hand type. Deposited excessive metal.

CLEANERS—KITCHEN AND BATHROOM

For cleaning pots and pans on which food may be burnt or stuck, a metal pad and soap is usually most efficient. Mild scouring powders or metal pads may be used on enamelware.

Steel wool is best for aluminum ware. It has enough abrasive action to do the necessary cleaning and yet is fine enough not to scratch aluminum too deeply. Ordinarily, scouring powders are too abrasive. Strongly alkaline cleaners (such as trisodium phosphate, washing soda, or a scouring powder containing a large percentage of these) should never be used on aluminum, which is easily injured by alkalies. Acid cleaners damage aluminum, too.

For dishes the most suitable cleaner in hard water is a soap with builder, such as *Co-op General Purpose, Rinso* or *Oxydol*.

Porcelain enamel surfaces, such as are found in bathroom washbowls and tubs, are roughened by most abrasive cleaners, so that they collect dirt and stains more readily. Thus the enamel requires more scrubbing and scouring, which in turn leads to more stains. If a housewife never uses harsh abrasives in the first place, porcelain enamel surfaces won't require scouring.

Limited tests made at Iowa State College in 1941 covering 13 commercial cleansing powders, showed that most of them scratched and dulled porcelain enamel surfaces. The results may be summarized as follows:

Very Harsh Abrasiveness: *Sunbrite; Bab-O; Royal Lemon; Brite-ize*.

Harsh Abrasiveness: *Cameo; Kitchen Klenzer; IGA*.

Moderate Abrasiveness: *Wright's Silver Cream; Old Dutch; Porcela; Bon-Ami, Shi-nup*.

Mild Abrasiveness: Powdered enamel.

Baking soda, also tested, produced no noticeable wear on porcelain enamel.

Porcelain enamel fixtures which are badly stained can be safely cleaned with an acid cleaner (oxalic or hydrochloric) but will roughen when exposed to strong alkalies. Soap and water will usually be sufficient, however; if not, a mild abrasive such as powdered enamel or whiting can be used. For removing stubborn dirt, sodium metaphosphate (*Calgon*), sodium pyrophosphate (*Co-op* water softener), sodium metasilicate or trisodium phosphate (*Oakite*), will usually be safe and efficient.

(Continued next page)

Rust stains may easily be removed from porcelain by a solution of oxalic acid or 10% hydrochloric acid. Oxalic acid should always be used with rubber gloves; it is injurious if there is a cut on the hand. Hydrochloric acid should not be allowed to touch skin, clothing or metal. Grease can be removed by using kerosene or some other organic solvent. When using organic solvents, apply them sparingly with a cloth damped in the solvent. Be particularly careful with those marked "inflammable."

Kitchen sinks are often made of enameled iron instead of porcelain (enameled iron gives a metallic ring when tapped lightly with a spoon; porcelain gives no ring, but a click). Enameled iron is resistant to alkali and may be cleaned with ordinary washing powders or trisodium phosphate and hot water. Mild abrasives or a good metal polish may be used occasionally. Rust stains are very difficult to remove, because acids or a scouring powder abrasive enough to remove the stain will remove the glaze also.

From the *Reports*, April 1940 and September 1941.

ELECTRIC CLOCKS

Electric clocks of the ordinary type can be used only on alternating current of the proper voltage and frequency. Your local power company can tell you whether its lines are suitable for operating an electric clock.

Self-starting electric clocks should have a current interruption indicator. This is a colored disc which appears back of a small window in the dial to indicate that the clock has stopped and then started again. Thus you know that the clock has lost time and must be reset. Manually started clocks do not need such an indicator, since they will not start up again by themselves after being stopped.

Electric clocks may be no more dependable than mechanical clocks in communities where frequent current interruptions occur, since under such conditions they will require frequent resetting.

The movements of the various clocks tested were judged by CU to rank in the following order of quality without regard to price:

1. **Telechron** (used also on **General Electric** and apparently **Ward's** clocks)

2. **Ingraham**
3. **Hammond** (used also on **Sears'** and **Miller** clocks)
4. **General Time Instruments Corp.** (used on **Westclox** and **Seth Thomas** clocks)
5. **Sessions**
6. **New Haven**

Each line generally uses the same movement for all or most of its models. Higher priced models may have decorative cases or fancy dials; such decorative quality did not enter into the ratings.

Both alarm and non-alarm clocks were tested. The **Hammond** alarm mechanism was found to be unsatisfactory because when the alarm was not shut off (the alarm may go off when there is no one at home to stop it) the clock did not show the correct time, and the alarm dial changed its setting so that resetting of both was required.

In the tests of performance, special equipment was used to measure the reserve power of the clocks, the loudness of the alarm (using a standard noise meter), the ease with which the clock could be tipped over, the power consumption (using an accurate watt-meter) and shock hazard (using a leakage tester). Accuracy was measured by controlled examination of the clocks in operation for three weeks; all the clocks tested behaved well in this respect.

From the *Reports*, November 1941.

BEST BUYS

The following clocks of the "Acceptable" list were judged to offer the best value for the money, in the order given. See listing under "Acceptable" for full details.

Ward's Cat. No.—1000. \$3.79 plus postage.

GE Sergeant 7H-94. \$2.95, list.

GE Troubadour 7H-118. \$3.95, list.

Telechron Secretary 7H-91. \$3.95, list.

Westclox Country Club No. 814. \$2.95, list.

ACCEPTABLE

(The groups are listed in estimated order of quality without regard to price)

The following four clocks were judged to rank close in quality:

Ward's Cat. No.—1000 (Montgomery Ward). \$3.79 plus

ACCEPTABLE—CONT'D

postage. Telechron movement. Bell alarm. Self-starting, with current interruption indicator.

GE Troubadour 7H-118 (General Electric Co., Bridgeport, Conn.). \$3.95, list. Available with luminous dial at \$1 additional. Telechron movement. Bell alarm (loud). Self-starting, with current interruption indicator.

Telechron Secretary 7H-91 (Warren Telechron Co., Ashland, Mass.). \$3.95, list. Available with luminous dial at \$1 additional. Bell alarm (loud). Self-starting, with current interruption indicator.

Westclox Big Ben No. 880 (Westclox, La Salle, Ill.). \$4.95, list. Available with luminous dial at \$1 additional. General Time Instruments Corp. movement. Chime (very quiet) followed by ring (loud) alarm. Self-starting, with manual set current interruption indicator.

The following five clocks were judged to rank close in quality:

Seth Thomas Echo 2A (Seth Thomas Clocks, Thomaston, Conn.). \$6.95, list. Available with luminous dial at \$1 additional. General Time Instruments Corp. movement. Bell alarm. Self-starting, with separate manually set current interruption indicator.

Westclox Bachelor No. 879 (Westclox). \$3.95, list. General Time Instruments Corp. movement. Bell alarm (loud). Self-starting, with manually set current interruption indicator.

GE Sergeant 7H-94 (General Electric Co.). \$2.95, list. Available with luminous dial at \$1 additional. Telechron movement. Buzzer alarm. Self-starting, with current interruption indicator.

Westclox Country Club No. 814 (Westclox). \$2.95, list. General Time Instruments Corp. movement. Buzzer alarm (loudness adjustable). Manual starting.

Telechron Forum 4H97 (Warren Telechron Co.). \$9.95, list. Non-alarm. Self-starting, with current interruption indicator.

The following nine clocks were judged to rank close in quality:

Hammond Tripoli (Hammond Instrument Co., Chicago). \$9.95, list. A calendar clock, showing day of the week and

ACCEPTABLE—CONT'D

date. Buzzer alarm. The alarm when left on, affected time operation of the clock. Manual starting.

New Haven Vega (New Haven Clock Co., New Haven, Conn.). \$3.95, list. Kitchen clock. Time setting operation starts clock.

Ingraham SA12 (E. Ingraham Co., Bristol, Conn.). \$3.95, list. Chime alarm (very quiet). Self-starting but *without current interruption indicator*.

Miller 828 (Herman Miller Clock Co., Zeeland, Mich.). \$5.98 (R. H. Macy & Co.). Hammond Instrument Co. movement. Buzzer alarm. Alarm may work continuously, affecting time operation of the clock. Manual starting.

Sessions No. 287W (The Sessions Clock Co., Forestville, Conn.). \$3, list. Kitchen clock. Self-starting, but *without current interruption indicator*.

Hammond Cathay (Hammond Instrument Co.). \$3.25, list. Buzzer alarm. Manual starting.

Sessions 358B (The Sessions Clock Co.). \$3.25, list. Chime alarm (very quiet). Self-starting, but *without current interruption indicator*.

Hammond Courtier (Hammond Instrument Co.). \$4.95, list. Buzzer alarm (very quiet). The alarm, when left on, affected the time operation of the clock. Manual starting.

Sessions 435W (The Sessions Clock Co.). \$5, list. Non-alarm type. Self-starting, but *without current interruption indicator*.

CLOCKS WITH AUXILIARY MECHANISMS

GE Voyageur 8B-52 (General Electric Co.), \$9.95, list. Telechron movement. A combined desk and switching clock which will switch on the radio or other electrical appliances for any number of 15-minute intervals throughout the day. Appliance plugs into rear of clock; on-off switch in front. Self-starting, but *without current interruption indicator*.

New Haven Time Switch (New Haven Clock Co., New Haven, Conn.). \$8.75, list. A combined desk and switching clock which will switch on the radio or other electrical appliances for any one period of time between 15 minutes and 5 hours. Appliance plugs into rear of clock. Self-starting, but *without current interruption indicator*.

FLASHLIGHTS

The most suitable and economical flashlight for all-round use is the cylindrical model using two size "D" batteries. This was the only type included in CU's tests.

Other types available are "penlights," which use smaller batteries, give only a small area of light and have a shorter life; lantern flashlights, which stand firmly on a large base; wrist type flashes, which fit over the wrist and are held in place by a band; generator flashlights, which use a hand-driven electric generator instead of batteries. In the last type, when you squeeze the flashlight the generator produces electric power. But the light flickers and is weaker than battery-produced light. Also, long-time operation is tiring.

There are three types of cylinder flashlights. Floodlight flashlights have a magnifying lens which spreads light evenly over a large area. They are most useful in the home and where a large field of light is needed. Focusing flashlights have a highly polished reflector and a non-magnifying lens. By adjusting the reflector or bulb, a concentrated beam of light can be thrown quite far. Focusing lights are good for general outdoor use. Prefocused flashlights throw the same kind of beam as focusing lights, but they cannot be adjusted for different distances. At a somewhat higher price you can get a combination floodlight and focusing flashlight.

Before you buy a flashlight, have the salesman take it apart and put it together while you watch; then try it yourself. Examine the inside of the case for corrosion—greenish color or rust. See that the switch operates easily. A desirable feature, but not worth premium prices, is a switch with a safety position so that the flash won't light accidentally.

It is advisable to keep a spare bulb on hand. Be sure it is of the same voltage as the original bulb, and that the base is the same. Never leave exhausted cells in a flashlight. They may corrode the case.

Ratings below were based on ability to flash and to give steady light, presence or absence of a safety catch on the switch, mechanical faults in operation of the switch, ability (of focusing types) to focus easily, inflammability and resistance of plastic cases to breakage, protection of the bulb from breakage due to the impact of the battery against its base, insulation against external short circuiting of batteries, and light projection characteristics.

Metal cases described in the ratings will probably be replaced by cases of other materials.

From the *Reports*, May 1942. (Labor notes included.)

BEST BUYS

The following flashlights of the "Acceptable" list were judged to offer the best value for the money in the order given. For full details see listings under "Acceptable."

Strauss. 49¢ without batteries.

H. L. Green. 59¢ without batteries.

Burgess. 85¢ with batteries.

Eveready. 69¢ with batteries.

ACCEPTABLE

(In order of quality without regard to price)

Ward's Cat. No.—4692 (Montgomery Ward). 98¢ with batteries plus postage. All metal, focusing type, combination flood and spotlight (separate switch for changing flood to spot).

Usalite Army type (U. S. Electric Mfg. Corp., NYC). Sold by Montgomery Ward as their Cat. No.—4776 at 98¢ with batteries plus postage. All metal, right angle prefocused type.

Eveready Army type (National Carbon Co., NYC). \$1.15 without batteries. All metal, right-angle prefocused type.

Ray-O-Vac (Ray-O-Vac Co., Madison, Wis.). 85¢ without batteries. All metal, prefocused type.

Blaco (Blake Mfg. Corp., Clinton, Mass.; sold by Strauss Stores, Brooklyn, N. Y.). 95¢ without batteries. All metal, prefocused type.

Usalite Redhead (U. S. Electric Mfg. Corp.). \$1.49 without batteries. Slightly inflammable plastic head and base, metal body; focusing type.

Strauss (Strauss Stores, Brooklyn, N. Y.). 49¢ without batteries. All metal, floodlight.

H. L. Green (H. L. Green and F. W. Grand Stores, NYC). 59¢ without batteries. All metal, prefocused type.

Burgess (Burgess Battery Co., Freeport, Ill.). 85¢ with batteries. All metal, prefocused type.

Bond No. 2810 (Bond Electric Corp., New Haven, Conn.). 89¢ without batteries. All metal, focusing type.

(Continued next page)

ACCEPTABLE—CONT'D

Franco No. 9850 (Bond Electric Corp.). 59¢ without batteries. All metal, focusing type.

Eveready (National Carbon Co.). 69¢ with batteries. All metal, focusing type.

Usalite Swivel-Head (U. S. Electric Mfg. Corp.). Sold by Sears-Roebuck as their Cat. No.—4437 at \$1.69 with batteries plus postage and by Montgomery Ward as their *Roto-Sphere* Cat. No.—4675 at \$1.69 with batteries plus postage. Head swiveled to any angle. Plastic case.

Usalite (U. S. Electric Mfg. Corp.). 59¢ without batteries. All metal, focusing type. Focusing somewhat difficult.

Usalite Bull Dog (U. S. Electric Mfg. Corp.). 89¢ without batteries. Pressed paper body with soft rubber head and base. Focusing difficult.

NOT ACCEPTABLE

Bright Star (Bright Star Battery Co.). 98¢ without batteries. All plastic, prefocused type. Case cracked when dropped.

Usalite Rubbertite (U. S. Electric Mfg. Corp.). \$1.69 without batteries. Metal completely enclosed in soft rubber; prefocused type. Rubber over switch wore through rapidly. Contact between bulb and battery depends on pressure applied by rubber washer. Washer loosened easily so that bulb did not light.

FLASHLIGHT BATTERIES

In the past CU has stressed the importance of buying only dated flashlight batteries. This advice still holds true, as long as dated batteries can be found. But if dated batteries are not available, purchase undated ones in a store with reasonably rapid turnover.

Beware of batteries dated 18 months ahead, instead of the standard 12. Two such brands tested (*Bond* and *Winchester*) were no longer lived than others dated only a year ahead.

Leakage is reduced to a minimum in modern batteries, even those without so-called "leakproof" metal containers. Any cell should be removed from your flashlight as soon as it is exhausted, to prevent corrosion of the flashlight.

War restrictions will reduce battery production, but sup-

plies should be adequate for necessary use. Don't stock up on batteries. They deteriorate rapidly.

Batteries tested were "D" size ($1\frac{1}{4} \times 2\frac{1}{4}$ inches), which is the most economical for general use. Fifteen undated brands and 17 dated ones were included. They were rated according to capacity (number of minutes of actual useful life), average voltage during useful life (which determines brightness of the light produced) and construction.

From the *Reports*, May 1942. (Labor notes included.)

One portable storage battery designed for flashlights was also tested. While the principle of such a battery is excellent, the only one found on the market was not satisfactory for general use.

From the *Reports*, October 1942.

DATED BRANDS

BEST BUY

The following battery of the "Acceptable" list was judged to offer the best value for the money. For full details see listing under "Acceptable."

Ward's Supreme Quality Cat. No.—4733 (Montgomery Ward). $6\frac{1}{2}\text{¢}$ or 6 for 35¢ plus postage.

ACCEPTABLE

(In order of quality without regard to price. In each group which follows, all brands are of approximately the same quality)

• GROUP I

Ward's Supreme Quality Cat. No.—4733 (Montgomery Ward). Mail order price, $6\frac{1}{2}\text{¢}$ or 6 for 35¢ plus postage; store price, 2 for 15¢.

Sears' Powermaster Armor-Clad Cat. No.—4650 (Sears-Roe-buck). Mail order price, 9¢ plus postage; store price, 10¢.

Ward's Leak-Proof Cat. No.—4728 (Montgomery Ward).

Mail order price, 9¢ plus postage; store price, 10¢.

Ray-O-Vac Leak Proof No. 2LP (Ray-O-Vac Co., Madison, Wis.). 10¢.

Burgess Uni-Cel No. 2 (Burgess Battery Co., Freeport, Ill.). 10¢. Sold for $6\frac{1}{2}\text{¢}$ plus postage by Lafayette Radio Corp.,

(Continued next page)

ACCEPTABLE—CONT'D

NYC, as Cat. No. 20622, and by Allied Radio Corp., Chicago as Cat. No. 53-009.

• GROUP II

Ward's Standard Quality Cat. No.—4732 (Montgomery Ward). Mail order price, 4¢ or 6 for 21¢ plus postage; store price, 5¢.

Acme No. 111 (Acme Battery Corp., Brooklyn, N. Y.). 5¢.
Bond Mono-Cell No. 102 (Bond Electric Corp., New Haven, Conn.). 10¢.

Winchester No. 1511 (Winchester Repeating Arms Co., New Haven, Conn.). 6¢.

• GROUP III

Bright Star No. 10M (Bright Star Battery Co., Clifton, N. J.). 10¢.

Eveready No. 950 (National Carbon Co., NYC). 10¢.

Co-op De Luxe (National Co-ops, Inc., Chicago). 5¢.

Usalite Metal Top (U. S. Electric Mfg. Corp., NYC). 10¢.

Mastercraft No. 2 (Walgreen Drug Stores, NYC). 5¢.

Sears' Powermaster Cat. No.—4651 (Sears-Roebuck). Mail order price, 4¢ plus postage; store price, 5¢.

• GROUP IV

Eclipse No. TID (Eclipse Battery Co., NYC). 5¢.

Royal No. 402 (S. S. Kresge Stores, NYC). 5¢.

UNDATED BRANDS

The following undated batteries are listed in approximate order of quality. There was no way to determine the age of these batteries at the time they were tested.

Philco D (Philco Radio & Television Corp., Philadelphia, Pa.). 9¢.

Schulte Double Life (A. Schulte Cigar Stores, NYC). 10¢.

Vitalic No. 501 (The Usona Mfg. Co., Toledo, Ohio). 5¢.

Winner No. 1 (Bond Electric Corp., New Haven, Conn.). 12½¢.

Franco No. 1051 (Bond Electric Corp.). 10¢.

UNDATED BRANDS—CONT'D

- Best** No. 1195 (U. S. Electric Mfg. Co., NYC). 5¢.
Craftlite No. 11 (Craftlite Battery Co., NYC). 5¢.
Blue Top (U. S. Electric Mfg. Co.). 9¢.
Ray-O-Vac (Ray-O-Vac Co., Madison, Wis.). 5¢.
Giant No. 411 (Manufacturer not stated). 10¢.
Merit No. 10 (U. S. Electric Mfg. Co.). 5¢.
Woolworth No. 700 (F. W. Woolworth Stores, NYC). 5¢.
Majestic No. 2 (States Batteries, Ltd.). 6¢.
Advance No. 11 (Advance Battery Co., Brooklyn, N. Y.). 5¢.
Radiant No. 22 (Liggett's Drug Stores, NYC). 5¢.

STORAGE BATTERY

Ideal (Ideal Commutator Dresser Co., Sycamore, Ill.). \$2.20. High initial cost, and requires a special charger costing \$2.20 to recharge it from an a-c line. Special bulbs, which may not be readily available, are necessary for adequate light. Cell needs frequent additions of water; one charge provides only about four hours' illumination. When not in use it requires monthly recharging. Case is fragile and may crack if dropped, ruining flashlight case and clothing with corrosive acid.

CARE OF WOOD FURNITURE

Too frequent application of polish may ruin the finish of wood furniture. Good practice is to wash the furniture twice a year, polish it twice a month.

To wash furniture, wet a pad of cheesecloth or old muslin, rub on any neutral soap and wash the surface with foamy suds. Wipe clean with a moist (not wet) rag and dry with a soft cloth.

The following formula will make a good polish, much cheaper than most commercial brands and as effective: cider vinegar—10 oz.; turpentine—10 oz.; mineral oil (paraffin oil, which can be bought cheaply in paint stores, will do)—10 oz.; denatured alcohol—2 oz. Shake well before using, and keep tightly corked in a cool place. The solution should last more than a year.

To apply, pour a little polish onto a slightly dampened

piece of clean cheesecloth. Pass lightly over the furniture, following the grain of the wood. Do only a small section at a time on large pieces. Polish the surface immediately with a clean, dry cloth. Be careful to rub with the grain and to remove all excess polish.

Never allow polish or oil to stand on furniture, and never use harsh cleansing agents such as scouring powders, steel wool, lye or household bleach. Don't place a piano or any veneered furniture near windows or radiators or any damp place.

Surface scars: A scar can often be removed at the time it is made, but it may become permanent if neglected.

If alcohol or perfume is spilled on furniture, soak up the liquid at once, rub the area briskly with your dry finger tips and wipe on some camphorated oil.

Hot-dish marks may be removed by applying turpentine, which will penetrate the surface and restore the color of the stain without affecting the finish. Then rub the spot with boiled linseed oil and finally with polish, each on a clean cloth.

Water spots on shellacked furniture can be removed by treating first with a cloth dipped in hot vinegar, then with camphorated oil. For varnished furniture, use ammonia water, then furniture polish. If lacquered furniture develops water spots, the condition is serious, because water has probably seeped through and dried beneath the finish.

Scratches may be made inconspicuous if they are not too large or deep. First make sure that no slivers remain in the scratch. An ordinary textile dye that matches the color of the wood can be bought in drugstores or 5&10¢ stores. Mix it with water until the desired shade is achieved (test by dipping the end of a blotter into the solution; the proper shade is just a little lighter than the finish). Apply with the end of a toothpick in successive applications, waiting until each coat is dry before applying another, until the scratch matches the rest of the finish. If the scratch is deep, or if you want a perfect finish, however, it is best to give the job to an experienced furniture polisher.

Imprints of crocheted or woven mats can be avoided by placing cellophane between the mat and the finished surface.

From the *Reports*, April 1941.

HOUSEHOLD GLUES AND CEMENTS

Household glues and cements are frequently labeled as "mend-alls"; however, their efficiency is confined to very specific kinds of repair jobs. There are five basic types; animal glues, liquid glues, powdered glues, liquid cements and flexible cements.

Animal glues are solid, and must be soaked overnight, then heated before use. They make strong joints, but are impractical for general household use.

Liquid glues, usually made of either fish or animal material, can be used for wood or other stiff materials, but they are not water resistant. In general, if they are thick they produce strong joints; if they are thin they do not. After use, excess liquid glue should be wiped off the container and stopper to prevent the container from being glued shut.

Powdered glues, containing either casein, resin or combinations of the two, are actually cements rather than glues. They are easily mixed, are water-resistant and produce strong joints in wooden articles. The all-resin variety should be applied in a workroom which is as close as possible to a temperature of about 70° F. throughout the gluing process.

Liquid cements with either a cellulose or a resin base are water-resistant and somewhat flexible. They are not satisfactory for wood, but cellulose cements can be used successfully in repairing non-porous articles like glassware. Resin cements cannot be used on either non-porous materials or rubber.

Flexible cements, mixtures of cellulose or resin base cement and latex rubber, should not be used to repair articles which are subjected to much strain. They are most suitable for pasting flexible objects together.

Liquid solders are not solders at all, but merely cellulose or resinous cements to which metallic powder has been added. They are entirely unsuitable for mending metal, the purpose for which they are sold. Their properties are similar to those of liquid and flexible cements.

The surfaces to which glues and cements are applied should be clean. Joints should be as well fitted as possible. The two parts should be clamped together firmly until the adhesive has set.

Ratings are based on general laboratory tests for strength in producing joints on various materials. The types are in

order of quality, with ratings within each type in order of economy.

From the *Reports*, May 1942.

ACCEPTABLE

• POWDERED GLUES

Grade A Casein Glue (Casein Company of America, Inc., NYC). 4-oz. can (makes 12 oz. liquid glue), 25¢. Water-resistant. Best suited to woodworking and wood mending.

Cascamite (Casein Company of America, Inc.). 1½ oz. can (makes 1½ oz. liquid glue), 10¢. Synthetic resin glue. An excellent glue for woodworking and wood mending; also satisfactory for mending dishes and pottery. Since it is waterproof, it can be used to mend vessels which hold liquids.

Weldwood (United States Plywood Co., NYC). 1⅓ oz. can (makes 1½ oz. liquid glue), 10¢. Synthetic resin glue. Properties and uses similar to those of *Cascamite* above.

• LIQUID GLUES

Dart Household Glue (Manufacturer not stated). 2 oz. bottle, 10¢. Samples tested showed variation in quality.

Lepage's Liquid Glue (Russia Cement Co., Gloucester, Mass.). 1¼ oz. bottle, 10¢.

Testor's Glue (Testor Cement Co., Rockford, Ill.). 1¼ oz. bottle, 10¢.

McCormick Iron Glue (McCormick & Co., Baltimore). 1½ oz. bottle, 10¢.

Dennison Liquid Glue (Dennison Mfg. Co., Framingham, Mass.). ¾ oz. tube, 10¢.

• LIQUID CEMENTS

The following brands of cellulose base liquid cement were found to be about equal in quality. All such cements are inflammable.

Amberoid (Amberoid Co., Brooklyn, N. Y.). 4 oz. can, 50¢. Makes a strong, waterproof joint for china or pottery, but its brown color spoils the appearance of the mended part.

Duco Household Cement (E. I. duPont de Nemours & Co., Wilmington, Del.). ¾ oz. tube, 10¢.

Testor's Clear Cement (Testor Cement Co., Rockford, Ill.). ¾ oz. tube, 10¢.

ACCEPTABLE—CONT'D

John Collins Cement (Standard Laboratories, NYC). $\frac{3}{4}$ oz. tube, 10¢.

- MISCELLANEOUS ADHESIVES

Flexible Cement (Casein Company of America, Inc., NYC). 2 oz. tube, 25¢. A mixture of casein glue and latex rubber. Useful for producing a waterproof joint in dissimilar materials; more useful as a paste than as a glue or cement.

Fix All Liquid Cement (Manufacturer not stated). $1\frac{1}{2}$ oz. tube, 10¢. Apparently made from water glass. Not waterproof, as claimed. Produces a strong joint in dishware and glass though joint will come apart in water. Produces a fairly satisfactory joint for wood.

NOT ACCEPTABLE

The following "liquid solders" are not suited to the uses claimed for them--mending gas or water pipes, leaky radiators or cans.

- LIQUID SOLDERS

Dart Metallic Solder (Manufacturer not stated). 10¢.

Metallic Liquid Mender (Lux-Visel, Inc.). 35¢.

Giant Metal Mender (E-Z Selling Mdse. Co.). 15¢ or 2 for 25¢.

HEATING EQUIPMENT AND FUELS

Most oil-burning furnaces in American homes were originally designed to burn hand-fired coal, and can be converted back to coal. A few makes were designed only for oil, and may not be convertible to coal. Your oil burner should be converted if possible, if you live in the oil-shortage area. Hand-fired coal burners can produce satisfactory heating comfort if the heating plant is in good condition and the fire properly tended.

Conversion Costs and Methods: If your furnace once burned coal, check or have your heating contractor check it to find out whether the grate lugs are still intact. If they are, you can use the regular coal grates made by the manufacturer of the boiler. If you have your old grates, you can probably have the oil burner removed and the grates in-

stalled for about \$10 to \$20. If new parts are needed or the chimney and boiler need cleaning, the bill may be higher. New grates (if you can get them) cost \$10 to \$20 for a small to medium-size boiler.

Where furnaces built for coal lack grate lugs, or where the regular grates can't be obtained, or where furnaces designed for oil can be converted (these either have or can be fitted with doors for firing fresh coal and removing the ashes), special grates should be installed by a competent and reliable heating contractor. The special grates are more expensive than regular grates, and they must be installed with great care if they are to work properly.

If your furnace cannot be converted from oil to coal by the methods described above, don't try short-cuts or make-shift arrangements. CU does not recommend any devices intended to convert a boiler or furnace to coal with the oil burner left in place. It is better to leave your furnace unchanged and try to obtain some auxiliary heating equipment such as a parlor stove, a pipeless heater or small furnace or burner which can be installed temporarily and cheaply. Used equipment will probably be the easiest to get. Don't count on fireplaces to do more than take the chill off one or two rooms. As much as 80% of the heat produced in a typical open fireplace goes up the flue.

How to save fuel: Here is a program for reducing fuel consumption by 35% to 65% in an average home:

1. Place a 4" insulating layer of rock wool over the upper story ceilings.

2. Fit the windows of rooms you intend to heat with tight-fitting storm windows. Put a tight-fitting storm door, preferably with a vestibule arrangement, over doors leading to the outside of the house. If storm doors and windows are not available, or if you find them too expensive, fit doors and windows with weatherstripping (See the *Reports*, October 1942, and page 332 of *Buying Guide*).

3. Tighten loose windows by removing and re-setting properly the inside wooden strips against which the windows slide. A snug-fitting window can usually be made to slide more easily by applying soap or wax.

4. Keep the heat turned off in little-used rooms and in bedrooms. Sleeping with bedroom windows open and the heat turned on wastes fuel.

5. Have a heating equipment dealer or engineer check your

heating plant for defects which cause high fuel consumption.

6. If you have an automatic damper regulator and a room thermostat, make sure the damper banks the fire *fully* when the thermostat indicates that the house is warm enough.

7. Check the insulation of the plant; see that too much heat isn't lost in the cellar. If you have a steam boiler, have it insulated with a two-inch covering of "85% magnesia" blocks cemented in place with asbestos, or else use a two-inch layer of rock wool. And make sure that all the basement heating pipes covered by insulation are in good condition.

You may or may not be able to do the insulating yourself. Before you tackle it, get a copy of the Government publication, "Care and Repair of the House" (publication BH 15, available from the Superintendent of Documents, Washington, D.C. 15¢ in coin).

8. Brush up on the techniques of efficient operation of your heating plant; call in outside expert advice if necessary—heating engineers, dealers or representatives of manufacturers of your plant.

9. See that your heating system is thoroughly cleaned. You may be able to do much of the work yourself.

First, with the aid of a wire brush, you can remove the accumulated soot from the metal surface between the firebox and the water or air chamber.

Then clean the smokepipe (the pipe running from the furnace or boiler to the chimney). Pull the end joints apart. If the metal inside is not badly corroded and there are no holes, brush it out and put it back. If one or more sections need replacement, get new ones (be sure you know the exact size) from a tinsmith.

Examine the chimney by inserting a mirror at the proper angle inside the clean-out door at its base. Use a flashlight if necessary. If your chimney is clogged with soot, you may need expert help. Don't undertake the job yourself unless you have the necessary ladders, are used to using them, and have a safe perch on the roof near the chimney. If you feel safe in going ahead, wrap a cobblestone in several thicknesses of burlap or other coarse fabric, tie it securely to a long rope, and raise and lower it inside the chimney a few times, scouring the sides.

Then build a small fire, and when it's going well, add green vegetation or other smoke-producing material. Cover the chim-

ney opening to make it reasonably airtight and see if smoke is leaking anywhere in the system.

Leaks in the boiler can be patched with furnace cement which can be bought in a hardware store. Poorly fitting doors (look at the ash pit door, too) and dampers can often be adjusted by filing off rough spots. Holes or cracks in the smokepipe mean that the defective portion should be replaced. Small leaks along the chimney can easily be fixed by a repairman. Extensive leakage usually means that the chimney requires relining.

If a sealing job doesn't result in a good draft, you'll probably need an expert's attention to your flue and smokepipe.

If yours is a hand-fired coal furnace, the following suggestions on how to tend the fire will help you get maximum heat at minimum cost:

1. Burn the smallest, least expensive coal (pea, egg, stove, nut, in order of increasing size) which will give good heating. Use larger sizes only to produce heat quickly in the morning, then use the small coal during the daytime and for banking.

2. Keep plenty of coal in the grates at all times. When adding fuel, fill up the firebox to the level of the bottom of the firing door in front, and to a few inches above this in back. Good dampers should enable you to regulate the amount of heat.

3. When you add fresh coal to the fire, leave glowing coals exposed somewhere in the firebed to help ignite combustible gases released by the fresh coal.

4. Never bank the fire by leaving the firing door open. If you can't bank without opening the door, there's something wrong with the dampers.

5. Shake the grates only enough to cause a scattering of live coals to appear in the ash pit.

6. Don't disturb the firebed too much with shaker bar and poker; this wastes coal and may cause clinker trouble, especially if you use bituminous coal.

From the *Reports*, August 1941, August and October 1942.

ELECTRIC HEATING PADS

Tests conducted by CU in 1938 showed that most electric heating pads, unlike automatic electric irons, do not permit temperature adjustment. What they do permit is a *different speed of heating* with a corresponding different rate of energy

supply with each position of the switch. The final operating temperature when the pad is covered may be about the same at the low setting as at the high, depending on the rate at which the heat escapes. Directions for operation usually don't point this out clearly. Because of the possibility of burns when the pad is well covered (when a patient is sleeping on it), pads should never be left with an unattended invalid or a child. And never go to sleep with a pad turned on.

Cloth pads should not be used without rubber covers because of the possibility of electric shock. All pads not equipped with rubber covers are "Not Acceptable." All-rubber pads should be discarded when the rubber cracks or splits.

CU's tests indicated that an expenditure of from \$5 to \$7 was necessary to get a pad of adequate quality and safety.

From the *Reports*, April 1938.

INSECT CONTROL

Liquid insecticide sprays dispose of insects indoors quickly and efficiently, provided the spray comes into actual contact with the insects. Close all doors and windows; then spray the insecticide thoroughly around the room, under the furniture and in the closets, and keep the room closed for a short while thereafter.

Liquid insecticide sprays contain deodorized kerosene extracts of pyrethrum, which may be combined with other powders or extracts, such as rotenone or lethane, to increase their potency.

Commercial standards exist which grade the sprays according to killing power as AA, A or B. Buy only graded products, as the standard gives some assurance that the spray will be effective if used as directed. The standard also provides that the spray will be harmless to man and household pets (although many persons are allergic to pyrethrum); will not stain fabrics or household furnishings which are not stained by dry-cleaning fluids; will not contaminate clothes or food, nor corrode metal; and will not have an objectionable odor. Grade B insecticide, which is the least expensive, is sufficiently potent for ordinary use.

Outdoors, or where screening is absent or inadequate, insect repellents give good protection. Despite its pungent odor, oil of citronella is the most popular repellent. It loses its potency

after a few hours through evaporation, but if used in a cream base the rate of evaporation is considerably retarded, and longer protection results.

For protection out of doors, dab the lotion on your skin. To ward off insects that come into the house through the screens, swab citronella on the screen or sprinkle it on a cloth or towel which you drape over the bed before retiring.

There are comparatively odorless skin repellents, which cost more than citronella, but are effective for a longer time. They ward off houseflies and mosquitoes and in stronger solutions resist gnats and chiggers. But they have little or no effect against the large beach fly, the beach gnat or the big green bottle fly, and they must be applied to every bit of exposed skin. These solutions generally contain alcohol; therefore care must be taken to prevent their getting into the eyes or other sensitive areas. Currently they are being much used by the army, and civilian supplies of them are scarce.

For further information on insect repellents, see the *Reports, July 1942*.

Fumigation with hydrogen cyanide gas ("cyanide gas" or "hydrocyanic acid gas") is effective in exterminating insects, but *it is a deadly poison and should be used only by a competent professional exterminator working under a license issued by the local health department*, and only if other methods described here have been tried, and failed.

Well fitted screens of 16-mesh wire cloth will protect houses against flies, mosquitoes and other flying insects. Full length window screens are best. Screen doors should open outward. Screening of chimneys and open fireplaces may be necessary.

Excellent pamphlets on the control of insects and other pests have been issued by the U. S. Dep't of Agriculture, and are available from the Sup't of Documents, Washington, D. C. (see p. 13 for ordering). The following suggestions may be helpful in dealing with various pests:

• ANTS

If possible, find the nest and destroy by pouring into it 1 or 2 tablespoonfuls of carbon disulphide, available at drug-stores. This gas is explosive and inflammable; keep matches, lighted cigars, etc., away while using it. Sodium fluoride powder dusted about places frequented by ants is a cheap and often effective means of control. Sodium fluoride is a poison;

do not inhale the dust, and keep it away from children and pets.

• BEDBUGS

Where fumigation is not possible, kerosene should be meticulously injected with a syringe into all cracks in furniture, helical springs, and points where the springs are connected. *Be sure to keep windows open and all flames away to prevent fire or explosion.* Infected mattresses should be sent out for sterilization.

• BEES, WASPS, HORNETS

The sting of these insects should be treated by removing the stinger, if present, and then giving the same care as for mosquito bites (see below). Pain or swelling may be lessened by applications of ice-cold wet compresses.

• COCKROACHES

Sodium fluoride (poison; see above under "Ants") may be carefully dusted into corners, cracks, etc. Dusting with borax or pyrethrum powder (the latter can be bought at seed stores or from insecticide companies) is safer, but less effective. Dusting with flowers of sulfur repels roaches.

To prevent reinfestation, watch carefully all boxes of food supplies and laundry brought into the house. Fill with putty, plastic wood or plaster of paris all cracks leading to spaces behind baseboards, trim, etc., and around pipes passing through floors. Dust sodium fluoride under the kitchen linoleum, and under shelving or oilcloth.

• MOSQUITOES

Since mosquitoes breed in water, the first step in eliminating them is to prevent water from collecting in open vessels or on poorly drained ground. Barrels or cisterns containing water not used for drinking should be treated with a tablespoon of kerosene every two or three weeks. A small handful of borax is best for unused toilets, fire buckets and water used for washing dishes or clothing. Treat drain traps in basements and areaways with kerosene every week or two, or with borax each time drains are flushed. Spray the surface of cesspools with a pint of equal parts of used motor oil and kerosene or introduce it through a toilet every three or four weeks.

(Continued next page)

A good stock of goldfish or top minnows will protect ornamental pools if fish are not fed and vegetation is not allowed to become too dense.

Scratching mosquito bites invites infection. Treatment with dilute ammonia water or a paste of sodium bicarbonate may relieve the itching somewhat. Follow this with a soothing application such as zinc oxide and lime water lotion or calamine lotion.

• MOTHS

The following materials, if used in the amount of at least 1 lb. for each 100 cu. ft. of storage space, and distributed thoroughly among the articles to be protected in a *tightly sealed* chest or closet, will help prevent damage from moth larvae.

Naphthalene flakes or balls (moth balls).

Paradichlorobenzene.

Gum camphor (expensive).

Dry cleaning kills moths, larvae, and eggs. "Mothproofing" of wool, to prevent damage by larvae, is effective, provided the treatment is permanent. Look at the guarantee supplied with the method and make sure that it is permanent, and that the wording is such as to make the processor fully responsible in case of failure. "Moth cakes" and preparations for use in metal or glass devices which hang in the closet are ineffective as ordinarily used. Moth preparations with arsenic are dangerous.

• SILVERFISH

Silverfish feed on sizing in paper, bookbindings and starchy insulation materials and starched clothing. They eat holes in thin fabrics, particularly rayon, and are fond of vegetable foods having a high starch or sugar content.

The cheapest means of control is the following poisoned bait: $1\frac{1}{4}$ cups oatmeal (ground to flour); $\frac{1}{4}$ teaspoon white arsenic; $\frac{1}{2}$ teaspoon granulated sugar; $\frac{1}{4}$ teaspoon salt. Mix together dry; moisten and mix thoroughly; then dry thoroughly and grind into small bits. Sodium fluoride powder can be substituted for white arsenic; but then no moisture should be added. Place about a teaspoon of bait in each of several shallow boxes, cover loosely with crumpled sheets of paper and distribute near haunts of silverfish. Don't leave within the reach of babies or pets.

Pyrethrum powder dusted or blown into haunts of silverfish is also useful. For quick killing of hordes of silverfish overrunning basements or storage rooms, spray with a saturated solution of paradichlorobenzene in carbon tetrachloride. For best results, keep rooms closed for 24 hours after spraying.

ELECTRIC IRONS

According to figures published by the National Safety Council, electric irons left standing cause about 45 fires a day in the United States; consequently, no iron without an automatic heat control should be purchased. Automatic irons made for a-c must not be used on d-c, because the automatic control will not function and will burn out on d-c. Only a limited number of ac-dc models of automatic irons are available.

Except for light work, irons of less than 1,000-watt capacity are not satisfactory. Though tests have been made of the effort required with irons of different weights, the available evidence does not conclusively favor either light or heavy irons.

Of the irons tested in May 1939 the only "Best Buy" still available is the **Sunbeam Ironmaster A-4** (Chicago Flexible Shaft Co., Chicago). Of the models rated "Acceptable" at that time, there remains only the **Dominion Ironamatic 242** (Dominion Electric Mfg. Co., Mansfield, Ohio).

From the *Reports*, May 1939.

JUICE EXTRACTORS

Fruit juicers are of two general types, reamer and pressure. The simplest and cheapest of the reamer type is the one-piece glass saucer with conical center, costing from 10¢ to 25¢. It is satisfactory where use is infrequent and little fruit is squeezed at a time. Do not buy the two-piece sets with a glass extractor having slots through which the juice drains into a glass bowl. The slots clog and chips of glass can fall into the juice unnoticed.

Reamer-type extractors are less desirable than the pressure type because they are somewhat less convenient, slightly more difficult to clean and deliver slightly more pulp with the juice. They do, however, yield more juice.

There are two kinds of pressure juicers. In one the fruit is squeezed between two jaws (jaw-pressure type) and in the

other it is forced down over a cone (gear-pressure type). The jaw-pressure type is somewhat more convenient and better adapted to all citrus fruits. However, it crushes the fruit to the extent that some of the oils are forced out of the outer skin and, along with dirt and coloring matter, may be carried into the juice. Fruits should be thoroughly washed before squeezing in this type.

There may be a few pressure-type extractors left on dealers' shelves, but they are scarce, because metals are required for their manufacture. The reamer type, which can be made of glass or plastics, is more readily available.

KNIFE SHARPENERS

High quality cutlery should be taken to a professional grinder, since it requires very skilful sharpening. Once a good edge has been ground into a blade, you can keep it sharp at home by occasionally whetting the knife against a butcher's steel or hand stone.

Poor quality knives, however, won't hold an edge long enough to make it worthwhile to have them ground by an expert. You can keep a fairly good edge on them by frequent use of a kitchen knife sharpener.

From the *Reports*, July 1941.

DISC TYPE

ACCEPTABLE

(*In order of quality*)

Edlund (Edlund Co., Burlington, Vt.). 50¢. Pair of discs mounted to form a v-shaped slot through which knife is drawn. Did not sharpen as rapidly as some of the others, but amount of metal removed was less excessive. Difficult for left-handed person to use.

Monarch (manufacturer not known). 50¢. Variation of the disc type. Consisted of steel rods set in shape of V through which knife was drawn.

Eversharp (E. W. Carpenter Mfg. Co., Bridgeport, Conn.). With handle, 29¢; without handle (for fastening on wall),

ACCEPTABLE—CONT'D

10¢. This and the *Ace* sharpener below were the most effective of the disc sharpeners, although they removed an excessive amount of metal.

Ace (Ace Hardware Mfg. Co., Philadelphia). 39¢. Quality about the same as that of *Eversharp* above. No reason for higher price.

NOT ACCEPTABLE

A & J (A & J Kitchen Tool Co.). 10¢ in Woolworth stores. Consisted of only one disc over which the knife was drawn through slots in a metal covering.

GRINDERS

Ratings are in approximate order of quality based on construction, ease of manipulation and sharpening effectiveness.

ACCEPTABLE

Dazey (Dazey Churn & Mfg. Co., St. Louis, Mo.). \$1.59. While the construction of this grinder was not quite so sturdy as that of the *Wulff* and *Vindex* listed below, it was much easier to manipulate and did a better sharpening job.

Vindex (National Sewing Machine Co., Belvidere, Ill.). \$1.60. Same type as *Dazey*. It was of much better construction but design features are such that it was not so easy to operate.

Wulff (Wulff Mfg. Co., Chicago). \$1 plus postage. Not found in any retail stores. Sold by Montgomery Ward as Cat. No.—2024. 84¢ plus postage. Consisted of a single stone with slots in a metal covering in which knife is held.

HAND ABRASIVE STONES

Most of these are the products of two large manufacturers of abrasives.

The silicon carbide product of the Carborundum Co. at Niagara Falls is known by the trade name of *Carborundum*; that of Behr-Manning Co., of Troy, N. Y., is known as *Crystolon*.

KITCHEN KNIVES

Most kitchen knives are bought from the counters of the five-and-tens; and tests show most of them to be extremely poor buys. CU's advice is to buy good cutlery and take good care of it.

The best blades are *forged*—hammered from bars of heated steel. Forging produces a fine-grained metal which takes and holds a sharp cutting edge and allows the blade to be tapered from handle to point. You can recognize a forged blade by its thick bolster (the part of the blade which is joined to the handle). However, knives of inferior quality sometimes have an overlay of metal at the bolster to make them look like forged blades. Blades *stamped* from sheets of steel usually aren't tapered, though occasionally a stamped blade may have a slight degree of tapering.

Despite their resistance to corrosion, stainless steel blades are generally (not always) inferior to carbon steel blades. Chromium-plated knives can combine resistance to stain with a good quality of carbon steel.

Ratings below are based on tests of knives on the market in July 1941. Prices, except where otherwise noted, are for 3-inch kitchen knives and are the prices paid for test samples in New York City. They vary greatly from store to store.

From the *Reports*, July 1941. (Labor notes included.)

ACCEPTABLE

(In order of quality without regard to price)

Rusnorstain (Robert F. Mosley, Ltd., Sheffield, England), 4" knife, \$1.65. High quality forged stainless steel.

Case (W. R. Case & Sons, Bradford, Pa.). 75¢. Chromium-plated blade of high quality.

J. A. Henckels "Welcut" (J. A. Henckels, Irvington, N. J.). 3½" stainless steel knife, 50¢. Not entirely stainless.

Cattaraugus (Cattaraugus Cutlery Co., Little Valley, N. Y.). Chromium-plated razor type blade in special handle (a very convenient paring knife), 40¢; non-stainless, high carbon steel blade, 30¢. Good quality knives. Stainless blades of this manufacturer were inferior to this (see rating below).

Universal Cobalt Stainless (Landers, Frary & Clark, New Britain, Conn.). Prices varied from 35¢ to 70¢ for the same type 3" knife. Good for a stainless knife.

ACCEPTABLE—CONT'D

Universal Hollow Ground Stainless (Landers, Frary & Clark). 35¢. A good quality knife.

Universal Stainless (Landers, Frary & Clark). 25¢. About the same quality steel as in knife listed above, but not hollow ground.

Cattaraugus (Cattaraugus Cutlery Co.). 30¢. Plain high carbon steel. Not stainless.

Kutmaster (Utica Cutlery Co., Utica, N. Y.). 40¢. Medium quality stainless blade.

Sears' Dunlap Cat. No.—9778 (Sears-Roebuck). 20¢ plus postage. Medium quality stainless blade. Better than others in its price class. A good buy.

Robeson Shuredge Black Hawk (Robeson Cutlery Co., Perry, N. H.). 35¢. "Chrome treated high carbon steel." Stain-resistant but not stainless. Rubber handle unsatisfactory.

Cattaraugus "Stainless" (Cattaraugus Cutlery Co.). 25¢. Good quality of blade for stainless knife.

Russell (Russell Harrington Cutlery Co., Southbridge, Mass.). 30¢. A fair quality, stainless.

Lamson (Lamson-Goodnow Mfg. Co., Shelburne Falls, Mass.). 45¢. Stainless blade; quality well below others at this price.

Robeson Shuredge Chromium Plated (Robeson Cutlery Co.). 25¢. Fair blade. Lower quality than *Black Hawk*.

NOT ACCEPTABLE

Robeson Shuredge "Stainless" (Robeson Cutlery Co.). 15¢.

The following brands were representative of the cheap cutlery sold in five-and-tens. They are of little value in the kitchen.

Geneva Forge.

Robinson.

Landers.

HOME LIGHTING**• FLUORESCENT TUBES**

Even though it is still in an early stage of development, fluorescent lighting offers advantages over conventional lighting. Its operating cost is much lower for the same amount of

illumination, and it gives softer, more diffused light. If electricity costs you 5¢ or more per kilowatt-hour, it pays to invest in fluorescent fixtures for lights that are much used—as long as fluorescent fixtures are available. At a rate much lower than 5¢ per kilowatt-hour, change to fluorescents may not be worth while, because of the comparatively high initial cost of the fluorescent fixtures.

Five samples of 15-watt daylight tubes tested by CU lasted an average of 2,260 hours, which compares with a life of about 1,000 hours for incandescents. Fluorescent "15-watt 18-inch daylight" tubes produce illumination about equal to that of a 50-watt incandescent bulb. At any given wattage level, therefore, the fluorescents give about three times as much light as incandescents.

When operated on a-c, a single fluorescent tube has an imperceptible flicker which becomes visible when moving objects are about and may be objectionable. This can be overcome by using two tubes together in a special fixture. Fixtures which can be used on both a-c and d-c are less economical than plain a-c fixtures.

The most efficient and least flickering "color" in fluorescent fixtures is the "3500°K white." The best type of fixture has a replaceable thermal glow cartridge starter (usually plugged into the fixture in back of the tube). After about 2,000 hours of use the tube usually fails to light; it should be replaced promptly. If the tube is allowed to remain in the socket, the starter will wear out and will also have to be replaced, and the auxiliary device which limits the electric current flow may also be damaged.

Fluorescent tubes range in size from 9 inches (6 watts) to 60 inches (100 watts). The most popular and cheapest size is the 15-watt, 18-inch tube, which lists at 75¢ for a 1-inch diameter, and at 95¢ for a 1½ inch diameter tube (it can often be bought at a discount). The 1½ inch tube is easier on the eyes than the 1-inch tube and is preferable if the tube is to be exposed to view.

From the *Reports*, January 1941.

• INCANDESCENT BULBS

"Better Light—Better Sight" advertising to the contrary, an illuminating intensity of 5 to 10 foot-candles, with the combination of direct and semi-indirect illumination frequently used

in homes, is adequate for ordinary reading for persons with normal vision. With the types of floor lamps or other fixtures common in most homes, higher intensities may produce sufficient glare to cause marked eyestrain. If the glare is present it nullifies part of the illuminating effect of the light.

The following table gives the distances at which light bulbs of various sizes (without a reflector) must be placed from reading matter to give an illuminating intensity of about 10 foot-candles.

| SIZE OF BULB IN WATTS | DISTANCE IN INCHES |
|--------------------------|-----------------------|
| 25 | 18 |
| 40 | 23 |
| 50 | 28 |
| 60 | 31 |
| 75 | 35 |
| 100 | 43 |

METAL POLISHES

To make metals shine, their surface must be lightly scratched with the right kind of abrasive; the scratches must be so minute that they are invisible to the naked eye. If the abrasive is too hard, the scratches will be visible and the surface of the metal marred; if it is too soft, it will merely slide over the metal surface.

The hardness of the metal is the most important factor in the choice of the correct abrasive. Since silver is considerably softer than brass, for example, the same abrasive should not be used on both.

Brass, bronze and copper may be polished with the same preparation. All corrode by forming dark-colored compounds on their surface, and the corroded surface accumulates greasy dirt. Polishes consisting of suspensions of amorphous silica or tripoli containing ammonia or a similar chemical cleaner are best for these metals. Liquid polishes should not contain inflammable substances.

Chromium needs no polishing, since it forms no compounds on exposure to air. It does accumulate a film of oil and other dirt. In the home, this may be removed by plain soap and

water or a few drops of kerosene on a damp cloth. Chromium on automobiles, where solid dirt accumulates, is cleaned best by commercial cleaners.

The best cleaner for aluminum is steel wool and soap. Commercial cleaners often contain abrasives too harsh to be used with complete safety on aluminum.

Silver may be cleaned in one of two ways:

1) by a polish containing a mild abrasive. Silver polishes containing cyanides should be avoided because of their highly poisonous nature. Those containing silica should also be avoided because silica is too harsh an abrasive for silver.

2) by the so-called electrolytic method—the silver is placed in an old aluminum pan and covered with hot water in which a little washing soda (2 teaspoonfuls to a gallon of water) or trisodium phosphate (1 teaspoonful to a gallon) and salt are dissolved. The tarnish is dissolved off, and a small amount of polish will then impart the desired shine.

The ratings below indicate the proper polish for several metals. Each listing is in alphabetical order.

From the *Reports*, May 1940.

ALUMINUM

BEST BUY

Steel Wool and Soap.

ACCEPTABLE

Alumin-Nu (Pynosol Co., Chicago). 5-oz. can, 35¢; 1-lb. can, 75¢.

Nu-A-Lu (Nu-A-Lu Co., NYC). 6-oz. bottle, 25¢.

NOT ACCEPTABLE

Broza (Lumo Corp.). 10-oz. can. Sand and soap. Abrasive too coarse for aluminum.

BRASS, BRONZE AND COPPER

ACCEPTABLE

Adro Metal Polish (Adro Co., NYC). 1-pt. can, 55¢. Liquid polish. Priced rather high.

Army and Navy Metal Polish (Grady Mfg. Co., Long Island City, N. Y.). 6-oz. can, 10¢.

ACCEPTABLE—CONT'D

- Knox-Tarnish** (Dolphin Chemical Co., Chicago). Small can, 25¢.
- Magic Metal Polish** (Magic Polish Co., NYC). 1-pt. can, 40¢.
- Matchless Liquid Rouge** (Matchless Metal Polish Co., Ridgewood, N. J.). 1-pt. can, 45¢; 1-qt. can, 65¢.
- Noxon Cleaner Polish** (Noxon Chemical Products Co., Newark). 3-oz. can, 10¢ (Woolworth's); 1-qt. can, 59¢ to 75¢.
- Rub-Less Metal Polish** (Feiner Chemical Mfg. Co., Springfield, Mass.). 3-oz. can, 10¢.
- Silco Metal Polish** (Tamms Silicaco Co., Chicago). 4 oz., 10¢.
- Sun Sparkle Metal and Glass Polish** (Sparkle Chemical Co., Long Island City, N. Y.). 1-pt. can, 45¢.

NOT ACCEPTABLE

- Buckeye Copper Polish** (Buckeye Chemical Co.). 1-lb. box, 60¢. Powder. Poisonous; contained a considerable amount of oxalic acid.
- Signal Metal Polish** (Baltimore Copper Paint Co.). 1-pt. can, 30¢. Inflammable. Naphtha type.
- Solarine** (Solarine Products Co.). Inflammable; contained nitrobenzene.
- Star Dust** Metal Conditioner and Polish (Star Dust Div. of Cleveland Container Co.). $\frac{1}{4}$ lb., 40¢; 1 lb., \$1. Powder. Contained 9% of oxalic acid.

CHROMIUM**BEST BUYS**

Kerosene and damp cloth.

Soap and water.

ACCEPTABLE

- Admiral Chromium Cleaner** (Admiral Products Co., NYC). $\frac{1}{2}$ -pt. can, 29¢. A solvent emulsion in water.
- Packard Chromium Cleaner** (Packard Motor Car Co.). $\frac{1}{2}$ -pt. can, 50¢. A similar emulsion, but with more solvent present.
- Simoniz EZ-2 Chrome Cleaner** (Simoniz Co., Chicago). 16-oz. can, 50¢. Metal polish with a mixture of pine oil and mineral oil added.

(Continued next page)

SILVER AND PEWTER

ACCEPTABLE

Electro-Silicon Polishing Cream (Electro-Silicon Co., NYC). 4 oz. can, 10¢; 8-oz. can, 19¢.

Electro-Silicon Silver Polishing Powder (Electro-Silicon Co.). 4-oz. can, 10¢; 8-oz. can, 19¢.

The Glad Rag (Glad Rag Products Corp., NYC). 2 sizes of cloth, 10¢ and 20¢.

Gorham's Silver Polishing Cream (Gorham Mfg. Co., Providence, R. I.). 8-oz. jar, 23¢ to 35¢.

Gorham's Silver Polishing Powder (Gorham Mfg. Co.). 6-oz. can, 35¢.

Johnson's Shi-nup Silver Polish (S. C. Johnson & Son, Racine, Wis.). 8-oz. jar, 25¢.

Reed & Barton Silver Polish (Reed & Barton, Taunton, Mass.). 4-oz. jar, 10¢.

Silvertex Powder (Galree Products Company, NYC). 8-oz. jar, 50¢.

Tarnish-Resist Silver Polish (John L. Snowber, NYC). 4-oz. bottle, 50¢.

Wright's Silver Cream (J. A. Wright & Co., Keene, N. H.). 8-oz. jar, 25¢.

NOT ACCEPTABLE

Magic Silver and Pewter Polish (Magic Polish Co.). 8-oz. can, 25¢. Too harsh for silver and pewter.

SILVER-PROTECTIVE CLOTHS

ACCEPTABLE

Pamilla Silver Cloth (Pacific Mills, Boston). \$2.50 a yd. Silver-impregnated cloth.

NOT ACCEPTABLE

Silverbrite Pad (Swartzbough Mfg. Co.). Contained lead acetate.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Re-read them now and then.

HOUSEHOLD OILS

The main purpose of household oil is to lubricate—to avoid or reduce friction between moving metal parts.

A lubricant should be thin enough to reduce friction to a minimum, but thick enough to provide an adequate protective film. Heavy machinery requires grease or heavy lubricants; light machinery (most household items) requires thinner oils.

Time and disuse of machinery should not cause the oil to harden or "gum up," as do those containing mainly animal or vegetable oil. Highly refined petroleum (mineral) oils are much more satisfactory. These are very light in color, usually pale yellow or green-yellow.

An oil with a high viscosity index is one which changes its consistency relatively little as the temperature changes. It provides surer protection under all circumstances.

Motor oil diluted with kerosene produces a light, cheap lubricant. Kerosene polishes and removes rust, but it has little lubricating effect. Don't pay for pure lubricating oil and get a large proportion of kerosene. If you need much lubricating oil for jobs where low flash point (temperature at which oil ignites) and frequent viscosity changes are not drawbacks save money by doing your own diluting. Use 4 parts of good quality light motor oil (SAE 10, see page 337) to one part of kerosene.

CU tested two to six samples of each of 22 brands of household oil. Ratings are based on viscosity at different temperatures, viscosity index, specific gravity, flash point, color, corrosive effects and net contents. Two brands labeled heavy oils for use on electric motors proved heavier than regular SAE 10 motor oil. If much used, motor oil is a better buy.

From the *Reports*, February 1942.

LIGHT OILS

BEST BUYS

The following oils of the "Acceptable" list were judged to offer the best value for the money, in the order given. For full details, see listings under "Acceptable."

Gulfoil. 10¢; cost per fl. oz., 2.5¢.

Sinclair. 15¢; cost per fl. oz., 2.8¢.

(Continued next page)

ACCEPTABLE*(In order of quality without regard to price)*

- Esso** (Esso Co., Bayway, N. J.). Large size, 25¢; cost per fl. oz., 6.3¢. Small size, 10¢; cost per fl. oz., 10¢.
- Gulfoil** (Gulf Oil Corp., Pittsburgh). 10¢; cost per fl. oz., 2.5¢.
- Amoco** (American Oil Co., Baltimore). 25¢; cost per fl. oz., 6.3¢.
- Sinclair** (Sinclair Refining Co., Inc., NYC). 15¢; cost per fl. oz., 2.8¢.
- Texaco** (The Texas Co., NYC). 15¢; cost per fl. oz., 5¢.
- Singer** (Singer Sewing Machine Co., NYC). 20¢; cost per fl. oz., 6.7¢.
- Richfield** (Richfield Oil Corp., NYC). 25¢; cost per fl. oz., 6.3¢.
- Ritz** (manufacturer or distributor not stated). 10¢; cost per fl. oz., 2.5¢.
- Ever-Ready** (Ever-Ready Co., NYC). 10¢; cost per fl. oz., 2.5¢.
- Atlantic** (Atlantic Refining Co., Philadelphia). 25¢; cost per fl. oz., 6.3¢.
- Veedol** (Tide Water Associated Oil Co., NYC). 15¢; cost per fl. oz., 3.8¢.
- Ward's** Cat. No.—9531 (Montgomery Ward). 10¢ plus postage; cost per fl. oz., 2.4¢ plus postage.
- 3-in-One** (The A. S. Boyle Co., Jersey City, N. J.). Large size, 25¢; cost per fl. oz., 8.3¢. Small size, 10¢; cost per fl. oz., 10¢. Had lowest flash point of all "Acceptable" oils. Lack of uniformity among different samples.
- Shell** (Shell Oil Co., NYC). 20¢; cost per fl. oz., 6.7¢.

NOT ACCEPTABLE

- Cities Service** (Cities Service Oil Co.). 20¢; cost per fl. oz., 5¢. Had an excessively low flash point.
- Dart New No. 1** (Slick Shine Co., Inc.; distributed by Kress Stores). 10¢; cost per fl. oz., 2¢. Showed excessive corrosive and tarnishing effects.
- Mobil** (Socony-Vacuum Oil Co., NYC). 25¢; cost per fl. oz., 6.3¢. Showed excessive corrosive and tarnishing effects.
- Sears' Cross Country** Cat. No.—4411 (Sears-Roebuck). 9¢ plus postage; cost per fl. oz., 2.2¢ plus postage. Labeled

NOT ACCEPTABLE—CONT'D

"General Purpose Oil." Showed excessive corrosive and tarnishing effects. Had a low viscosity index.

Sears' Cross Country Cat. No.—4408 (Sears-Roebuck). 19¢ plus postage; cost per fl. oz., 0.6¢ plus postage. Labeled "Light Machinery Oil." Was heavier than **Sears'** Cat. No.—4411 above. Had an excessively low viscosity index.

Sunoco (Sun Oil Co., Philadelphia). 15¢; cost per fl. oz., 3.8¢. Had an excessively low flash point.

HEAVY OILS**ACCEPTABLE**

Gulf Electric-Motor Oil (Gulf Petroleum Specialties, Pittsburgh). Large size, 24¢; cost per fl. oz., 3¢. Small size, 10¢; cost per fl. oz., 5¢.

NOT ACCEPTABLE

3-in-One Heavy Body Oil (A. S. Boyle Co., Jersey City, N. J.). Large size, 25¢; cost per fl. oz., 8.3¢. Small size, 10¢; cost per fl. oz., 10¢. Had an excessively low viscosity index.

PAINTS AND VARNISHES

The range of colors and the number of can sizes of paint are limited by wartime restrictions, and the composition of both paints and varnishes is being altered. New paints may be slower drying; this need not impair durability and will in fact make them easier to apply.

Each manufacturer is likely to have various lines of prepared paints, and the line most advertised to the public is usually the best, though most expensive. But the best guide to quality is the formula on the label.

For white or light colors, pure white lead paint is the most durable. The prepared paint should contain at least 70% pigment (basic carbonate white lead except for a small amount of colored pigments in colored paint). If bought retail as soft paste and mixed on the job, pure white lead is usually the least expensive of high quality paints, but at wholesale mixed pigments are often cheaper. Buy mixed pigments prepared.

(Continued next page)

The formula on the paint can label may read in one of two ways: the percentages of total pigment (solids) and of total vehicle (liquids) in the paint may be given, then individual pigments listed as percentages of the total pigment, and vehicle substances as percentages of the total vehicle. Or individual ingredients may be given as percentages of the paint as a whole. In reading a paint formula, note which way it is stated. Then apply these rules:

1. The white leads (basic carbonate or basic sulfate or both) and zinc oxide together should amount to at least 50% of the total pigment.

2. After subtraction of the white leads and zinc oxide from the total pigment, titanium dioxide should be at least 30% of the balance. ("Titanium-magnesium" and "titanium-barium" are substances containing 30% titanium dioxide. Beware of formulas saying merely "titanium pigment"; you can't tell what fraction is titanium dioxide.)

3. If the percentage of white lead and zinc oxide in the total pigment is: 50 60 70 80 90

The percentage of total pigment in the paint should be at least: 62 64 65 66 67

Special house paint primers are better than thinned finish paint for the first of two coats. Don't use primers for the last coat; they won't stand exposure to weather.

White lead and zinc oxide together should be 35% or more of the total pigment of primers. They should contain white lead. They need not contain zinc oxide; if they do, they should contain a smaller proportion than the finish coat. After white lead and zinc oxide content is subtracted, at least 20% of the balance of the pigment should be titanium dioxide. The total pigment should be at least 60% of the primer.

Most dark paints now contain inferior varnishes and will lose their gloss and color faster. Lack of chromium may eliminate such colors as bright lemon yellow and green.

Inside paints usually contain titanium dioxide or zinc sulfide instead of white lead or zinc oxide. They contain varnish instead of linseed oil, which makes them level out brush marks and dry quickly without exposure to sunshine. New interior paints will dry more slowly because of substitutions in the varnish. The formula on the label will help little in judging their quality.

Exterior paints can be used on almost all exterior surfaces except porch floors and outdoor furniture. For these, porch or

deck paint should be used. A fairly good porch paint can be made with one quart of spar varnish to one gallon of house paint, tinted to a darker color if necessary. Paint to which varnish has been added should be used within a few days. Don't use house paint indoors except as a priming coat.

For interior walls and ceilings, flat wall paints are best because of their "soft" appearance. They soil less than gloss paint but are harder to wash and can be washed less often. Semi-gloss is good for kitchens and bathrooms, metal trim or woodwork. It is less harsh looking than gloss paint and stands more washing than flat paint.

Plaster, wood, fiberboard and other absorptive surfaces must be primed or sized before they can be covered with oil wall paints. The cheapest size for plaster is glue size, but the best is a wall primer (or primer-sealer) made by the manufacturer of the wall paint to be used over it. Inexpensive "sizing varnish" mixed with wall paint (2 qts. varnish per gal. of paint) also makes a good wall primer. Use one coat of wall paint over a wall primer, two over glue size.

A special flat wall paint exists which can be applied directly on bare plaster. It can also be used on walls which have one coat of calcimine, for a quick though slightly inferior job. It is about as washable as casein paint.

Casein paint is cheaper than oil paint. On unsized plaster one coat is sufficient; it can also be used on new plaster not yet seasoned enough for safe use of oil paint. After casein paint has been dry for 30 days, soot or dust can be removed by washing gently and quickly with very mild soap and water.

Calcimine is the least expensive flat paint for walls and ceilings. It is easily damaged by water and cannot be cleaned but it can be washed off entirely and a fresh coat applied. Over new plaster sealed with glue size, use one coat.

Don't use calcimine or casein paint over oil paint or over smooth woodwork; oil paint can be applied over casein paint if wall primer is used for the first coat. Before flat oil paint is applied over gloss or semi-gloss paint, all gloss must be removed by sandpapering.

Enamel costs more than paint and is more difficult to apply well. The surface it covers must be smooth, for it brings out any imperfections. Automobiles and outdoor furniture are about the only outside surfaces smooth enough for enameling. Apply it indoors only to furniture or woodwork of fine quality, carefully sandpapered, primed, built up with enamel under-

coater and sandpapered again. Otherwise, use gloss or semi-gloss paint. Before using an enamel out of doors, be sure that such use is recommended on the label.

The color of oil paints or enamels (not calcimine or casein paints) can be changed by tinting with colors-in-oil. Some dealers tint paint for a small charge. You can do the job yourself with a little advice from a competent dealer.

When applying paint, follow the directions given on the label. Be wary of paint for which great covering qualities are claimed, or if large amounts of thinner are recommended by the manufacturer.

Since small cans of paint may soon be eliminated, it is important to know how to store paints. Use the original container if less than half the contents have been used; clean out all paint from the friction groove of the can and press the cover into place tightly. Otherwise, put the paint into a smaller, clean, airtight container. Store in a cool dry place, away from flame or heat, in a place where it will not be moved or shaken often.

Don't shake the can before you open it. When the cover is pried up, there should be a sound of intrushing air. If there is a skin of dried paint over the surface, loosen it from the sides of the can and lift it out in one piece. Stir the paint thoroughly. If it has thickened a trifle, a small amount of turpentine may be added. If it is very thick or is jelly-like, the paint is no longer good. Slow-drying paints can usually be stored for months, but quick-drying products are apt to spoil.

Good paint brushes are becoming expensive and scarce. To keep a brush in good condition, clean it well immediately after use. First use paint thinner, then warm water and soap; dry the brush and store it in a horizontal position. Choose the cleaning agent according to the paint used on the brush. For oil paints and varnishes, use turpentine, then naphtha or kerosene. For flat paints, use naphtha or kerosene. For shellac, use denatured alcohol. For lacquers, use acetone and naphtha. For calcimine and other water paints use only water.

From the *Reports*, April 1942, May 1942.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Re-read them now and then.

PAPER TOWELS

An efficient paper towel must have its fibers packed loosely enough to be absorbent; it must be thin enough to be flexible, yet not so loosely packed or so thin that it falls apart. To balance these qualities the towel must either be crimped (roughening the surface) or chemically treated. Some degree of efficiency can be obtained from absorbent, soft towels by using them with a blotting motion, and from non-absorbent, hard towels by considerable rubbing.

Cleanliness in manufacture is important, more so as the use of repulped paper increases. If this comes from clean stock of a publishing or cutting room, it is sanitary. Whatever the source of its ingredients, if a paper towel gives off a disagreeable odor when wet, don't buy that brand again.

Paper towels deteriorate when stored, especially if tightly packed. Avoid buying towels packaged in tight rolls. Standard size towel is $7\frac{1}{2}$ by 11 inches. Standard packages contain 150 sheets.

CU tested 18 brands for thickness, weight, bursting strength and absorptive qualities before and after "aging" (a test that simulated six months of storage). Ratings are based on all-round results. Packages are standard size unless otherwise stated.

From the *Reports*, May 1942.

BEST BUYS

Scott Towel (Scott Paper Co., Chester, Pa.) 10¢. Thick and heavy, absorbs rapidly; high bursting strength, adequate crimping; highest quality towel tested.

Red Cross (A. P. W. Paper Co., Inc., Albany, N. Y.) 9¢. Bursting strength and absorption same as Scott Towel.

Slightly thinner and lighter; tore slightly faster when wet.

Balm (J. J. Newberry Co., Inc., Brooklyn, N. Y.) 8¢. Good all-round paper towel.

ALSO ACCEPTABLE

(In order of quality without regard to price)

Evergreen (Hoberg Paper Mills, Green Bay, Wis., distrib. Montgomery Ward Cat. No. 7423). 10¢ plus postage. Thin, fairly heavy paper with high bursting strength; good absorption before aging, fair after aging.

Co-op Blue Label (Eastern Cooperative Wholesale, Brooklyn,

ALSO ACCEPTABLE—CONT'D

N. Y.). 9¢. Thick, light paper, only fair bursting strength, good absorption before and after aging.

Statler (Statler Tissue Co., Somerville, Mass.). 9¢. Thick, fairly heavy paper, good bursting strength; good initial absorption but poor after aging.

United Cross (United Whelan, Inc., N. Y. C.). 10¢. Thin, light paper with fair bursting strength and good absorption before and after aging.

Co-op Red Label (Eastern Cooperative Wholesale). 10¢. Thinner and heavier than *Co-op Blue Label*, higher bursting strength, but absorption after aging only fair.

Gimbel's (Gimbel Bros., N. Y. C.). 10¢. Fairly thick, heavy paper, fair bursting strength and good initial absorption, poor absorption after aging.

Aimcee (Associated Merchandising Corp., N. Y. C.). 25¢. 150 sheets, 11 x 15 in. Sheets are twice the size of ordinary paper towels, which makes for waste. Fairly thick, heavy paper, fair bursting strength, good initial absorption, poor after aging.

Warwick (Erving Paper Mills, Erving, Mass.). 10¢. 100 sheets, 7½ x 11 in. Fairly thick, heavy paper, fair bursting strength, fair absorption before and after aging.

Ben Mont Red Wrapper (Ben Mont Paper, Inc., Bennington, Vt.; distrib. F. W. Woolworth Stores). 15¢. Fairly thick, heavy paper, fair bursting strength; good original absorption but poor absorption after aging.

Ben Mont Green Wrapper (Ben Mont Paper, Inc.; distrib. F. W. Grand Stores). 10¢. From tests, appeared to be about the same as *Ben Mont* above.

Dart (S. H. Kress Stores). 10¢. 55 sheets, 7½ x 11 in. Thick, light paper, poor bursting strength; good initial absorption but poor after aging.

NOT ACCEPTABLE

None of the following had good bursting strength. All absorbed poorly.

Celtek (Mazer Paper Mills, Lansdowne, Pa.) 5¢. 100 sheets, 7½ x 11 in.

Park Lane (Park Tissue Mills, Inc., N. Y. C.). 10¢. 150 sheets, marked 7½ x 11 in., actually only 7½ x 10¾ in.

Planet (Biltmore Paper Co., N. Y. C.). 10¢.

Hearn's Red Label, (Hearn's, N. Y. C.). 12¢.

POTS AND PANS

Glass, enamelware and cast iron are now replacing aluminum and stainless steel. Among the various types of cooking utensils there is no "best". Each has its place in the kitchen.

It is economy to buy good quality pots and pans, because their durability and the savings in fuel will offset their higher initial cost.

Shape is important. Pots and pans should sit flat on the stove. Flat bottoms save fuel especially with an electric stove. Maximum efficiency is obtained from pans slightly larger than the heating unit. Covers should fit tightly.

Pressure cookers require half or a fourth of the cooking time needed with ordinary utensils. That means great savings in fuel. But they are expensive, and very few are left in the stores.

Enamelware is made by coating a steel base with enamel, a form of glass. It is second only to aluminum in heating efficiency. It absorbs heat quickly but spreads it slowly and unevenly. It must be heated slowly, or foods will scorch, heat tints will develop and the utensil perhaps be chipped and ruined. Enamelware will also chip if struck heavily. If chipped on the inside, it should be discarded immediately.

Enamelware may be cleaned with mild scouring powders or with steel wool. But when foods dry or cake on the enamel surface, they should be soaked rather than scraped off. Don't use enamelware utensils for preparing or storing highly acid foods like citrus fruits or tomatoes. Enamelware sometimes contains antimony, a toxic metal, which may form poisonous compounds with strong food acids.

Quality of enamelware is judged by weight and thickness. The better grades have several layers of enamel on a heavy steel base. Many tiny cracks or air bubbles on the surface are likely to be signs of low quality.

Glass cooking utensils, though high in price, have many advantages. Their transparency allows the cook to watch the contents. The same utensil may be used to mix the food, cook it, serve it and store it. Heating efficiency of glass is not so high as aluminum or enamelware, but glass is superb for baking. Food chemicals have no effect on it, and almost any kind of cleaner may be used. Good glass cooking utensils can be heated directly over the flame but they should not be subjected to rapid temperature changes.

(Continued next page)

Cast iron is heavy and generally not too convenient, but it is good and extremely durable for skillets, griddles and Dutch ovens. It is not easy to clean and will rust if not dried thoroughly. Cast iron utensils are usually sold with a lacquer coating to prevent rusting. This should be removed by scouring with soap and water. The utensil should then be rinsed and dried, covered with cooking oil, tallow or grease, placed in a warm oven for several hours, then rinsed and dried again. Before storing for any length of time, iron pots should be covered with tallow or oil to prevent rusting.

Sheet iron utensils are not good buys. They dent and rust easily.

Earthenware utensils are ideal for food requiring a long, slow cooking period at low temperatures. They must be treated carefully, since they break under sudden temperature changes.

From the *Reports*, March 1942.

SMALL RADIOS, PORTABLES, PERSONALS

Production of radios for civilian use was halted in April 1942, but both manufacturers and distributors had accumulated large stocks. Therefore, CU's ratings of small radios, tested in March, 1942, and of portables and personals, tested in July 1941, will be valid for some time to come.

A portable radio is excellent for specific uses, but it makes a poor all-purpose radio. Where electric current is available, a good small radio is preferable, since the power output of a portable is generally less than one-tenth the output of a midget radio.

Most of the "personal" portables are extra-small, extra-light camera type models which can be carried easily in your hand, or if fitted with a leather strap, slung over your shoulder. The personals carry the advantages of portability to their extreme limits, but have even less volume and poorer tone quality than the standard portables.

If you can, check several samples of the same portable model before you buy, as they may vary considerably in performance. It's best to check the sensitivity of a portable during the day, for even a poor model may pick up a good quota of stations at night. *And be wary of portables in which the batteries are already installed*, since part of the battery life may have been used up in demonstrations or simply wasted on the shelf.

To help you avoid buying a new radio, CU offers advice on keeping the radio you have in repair. If you learn to recognize a few basic disorders, you may be able to avoid paying a service man for unnecessary repairs.

Don't have an a-c model converted into a d-c radio. Either buy an ac-dc midget for temporary use while at the d-c location or else buy a d-c to a-c inverter, costing about \$18 at Lafayette Radio Corp. (New York), or Allied Radio Corp. (Chicago).

Defective aerials: If your radio has a bad, irregular crackle, disconnect the antenna and ground from the radio; with a short piece of wire, connect together the aerial and ground posts (or connect the aerial connection to the chassis if there is no ground post) and turn up the volume control. If the crackle is gone, your aerial is probably faulty. See that it is not touching metal objects or other aerials. If it is not all one piece of wire, see if the joints are loose (if you are installing a new aerial, make it all one piece). If your aerial is all right, make sure that other aerials are not rubbing against each other or against metal objects. They can affect your aerial. Look also for loose connections on nearby appliances or lamps.

If only strong stations can be heard, connect a piece of wire at least five feet long to the aerial post of the radio. If reception improves, the aerial wire is improperly connected or broken near the radio. In cities satisfactory reception can often be obtained without any aerial (not even a loop antenna) if a wire is connected from the *aerial* post of the radio to the steam or water pipe.

In a few cases the noise may be eliminated by connecting a wire from a water or steam pipe to the *ground* connection of the radio (usually a black wire some six inches long, sticking out at the back).

Hum in a radio operating on a-c current: Try reversing the electric plug in the wall socket, or moving away any appliance or lamp standing close to the radio.

Intermittent reception or squeals: If a hard whack on the cabinet brings the radio to life temporarily, try wiggling the tubes in their sockets, twisting grid caps or shield tops, or rotating shield cans for a permanent cure.

"Dead" radio (no light, no heat, no sound): Check the electric plug; see if the "legs" and the wires leading to the

legs are intact, see if the plug is inserted well into the socket. If so, test the socket; see whether a lamp plugged into it will light. If an ac-dc radio operating on d-c heats up but doesn't play, try reversing the plug in the socket.

Tubes: Save money by removing the tubes yourself and taking them to a radio store to be tested. Choose a store that gives a large discount from list price on standard brands of tubes. Local stores of mail order houses or large chain radio supply stores may sell their own private brands (*Knight, Lafayette, Sears', Ward's*) at even lower prices.

Always disconnect the wall plug of the radio before touching the tubes—or any other part of the radio's inner mechanism.

If there is a wire running to the top of some of the tubes, pull off the cap to which the wire is soldered, using a pencil to pry it up if necessary. Tubes with form-fitting metal shields can be removed in entirety and the shields slipped off afterwards. Shields like round cans must be removed before the tube is taken out. To remove a tube easily, grasp it firmly and use a straight, upward pull combined with a rocking motion. If the tube's type number isn't printed near the socket, write it there as you remove the tube. If there are duplicates, mark each tube and socket.

A tube that tests "bad" in a tube tester may work in your particular radio. Be sure to keep your old tubes when you buy new ones. Put your old tubes back in the set, note its performance, and then substitute the new ones *one by one*. Where there's no noticeable improvement, leave the old tube in. Tubes need not be replaced regularly, but only when they stop functioning normally.

With some types of ac-dc radios the pilot light must be replaced as soon as it burns out or the tubes will burn out too.

If the above treatment doesn't remedy your radio's condition, you'll have to call on a repair man. Unless you have a repair man in whom you have complete confidence, you'll have to use caution. Ask to have the old parts returned, to avoid being billed for fictitious replacements. If your radio is small, take it to the shop and try to have the repair man fix it while you wait, so that he cannot overestimate his time. If your radio is too large to take to a shop, warn the service man in advance that you want the work done in your home; he then can expect his \$2 hourly fee (plus cost of replacements), but

no more. Find out in advance how much he will charge for coming to your house and examining the radio if he doesn't fix it. If he says the radio can't be fixed at home, it will be a good investment to call in another repair man before letting it go out.

From the *Reports*, July 1941. (Labor notes included.) ; October 1941; March 1942. (Prices of portables and "personals" are as of October 1941.)

SMALL RADIOS

BEST BUY

The following radio of the "Acceptable" list was judged to offer by far the best value for the money. For full details, see listing under "Acceptable."

Zenith Consoltone 6D-614W. \$26.95, list.

ACCEPTABLE

(In estimated order of merit)

Zenith Consoltone 6D-614W (Zenith Radio Corp., Chicago).

\$26.95, list. Large midget in ivory and black plastic case with a carrying handle. Excellent, large, rotating hand-type dial. Easiest to tune of all radios tested. Pseudo-bass tone excellent. Treble control on the back. Excellent sensitivity selectivity and automatic volume control. This model is being replaced by a wood cabinet model, 6D2614, at \$28.95, list. At this price it should still be a "Best Buy."

Philco PT-95 (Philco Radio & Television Corp., Philadelphia). \$22, list. Large midget in bleached wood case with ivory plastic trimmings. Carrying handle. Rotating-type dial. One of the two samples tested did not cover the broadcast band at the low frequency end. Poor bass.

Emerson 413 (Emerson Radio & Phonograph Corp., NYC) \$24.95, list. Brown bakelite case. Flat dial. Sample tested did not cover the broadcast band at the low frequency end. Fair short wave band (9 to 12 megacycles) but very poor short wave dial. Good broadcast dial. Treble control not sufficiently effective. Balance of tone poor. Good sensitivity. Current consumption considerably higher than that of other ac-dc radios tested (40 watts). Short circuit hazard. Sleazy electric wire.

(Continued next page)

ACCEPTABLE—CONT'D

RCA 15X (RCA Mfg. Co., Camden, N. J.). \$19.95, list. Large midget in brown bakelite case. Slide dial. Broadcast band extended at the high frequency end (so-called "police" band). Easy tuning. Fairly good tone. Treble control. Undistorted volume higher than average. Some cabinet rattles. Somewhat distorted tone. Provision for connecting a record player. Short circuit hazard to chassis but chassis was reasonably well hidden. Sleazy electric cord.

RCA 35-X (RCA Mfg. Co.). \$22.95, list. Large midget. Slide dial. Broadcast range extended at the high frequency end (so-called "police" band). Easy tuning but crowded dial. Low sensitivity and poor automatic volume control. Provision for connecting a record player.

Philco PT-7 (Philco Radio & Television Corp.). \$24.50, list. Large midget. Underwriters' Laboratories seal. Slide dial. Tone balance poor and lacking in high treble notes. Bad whistles ("birdies").

Emerson 421 (Emerson Radio & Phonograph Corp.). \$19.95, list. Midget in brown bakelite case. Slide dial. Easy tuning. Good bass (for midget) and fair treble. Tone control. One of the two samples tested had rattles. Poor selectivity. Liable to whistles ("birdies"). Balance of tone poor. Short circuit hazard. Sleazy electric wire.

Emerson 418 (Emerson Radio & Phonograph Corp.). \$22.95, list. Small table model with provision for gripping in back. Rotating-type, extremely crowded dial. Limited tone range both on bass and treble. Poor volume. Short circuit hazard at two bottom screws; however, these were reasonably well hidden. Sleazy electric cord.

Emerson 336 (Emerson Radio & Phonograph Corp.). \$16.95, list. Midget with a collapsible handle; available in a choice of colors. Rotating-type dial, poorly designed. Very hard to tune (fast pointer). One of the two samples tested did not cover the lower end of the broadcast band and had very poor balance of tone. The tone of the other sample was fair. Fair sensitivity, poor automatic volume control. Short circuit hazard. Sleazy electric wire.

Ward's Airline Cat. No.—736 (Montgomery Ward). \$28.95 plus transportation. Higher in Ward's stores. Table model. Satisfactory hand-type dial but tuning knob too fast. Muffled, boomy, distorted tone. Treble control. Fair short wave

ACCEPTABLE—CONT'D

band (9 to 12 megacycles). Underwriters' Laboratories seal but had short circuit hazard. Six mechanical push-buttons, hard to set up. Liable to telegraph signal interference. Loudspeaker facing left instead of forward.

Philco 42-321 (Philco Radio & Television Corp.). \$27, list. Large midget with a place to grip in the back. Slide dial; hard to tune. Did not cover the high frequency end of the broadcast band. Boomy tone (lacking in high frequencies). Poor automatic volume control.

• TONE QUALITY

The following list of the small radios rated above is in estimated order of tone quality.

OUTSTANDING

Zenith Consoltone 6D 614W.

FAIR

RCA 35-X.

Philco 42-PT-95.

RCA 15-X.

Philco 42-PT-7.

Emerson 413.

Emerson 418.

Emerson 421.

Philco 42-321.

POOR

Lafayette D-294.

Emerson 336.

Ward's Cat. No.—736.

(Continued next page)

The Buying Guide is designed for your use in shopping. The information in it is put as concisely as possible. In most cases you will find a much more detailed treatment of a given subject in some issue of the Reports. If you are making an important purchase and the information in the Guide is not adequate, you should consult the Reports. An alphabetical index to major subjects covered in the Reports for the past five years will be found on page 375.

STANDARD SIZE PORTABLES

BEST BUYS

The following portable radios of the "Acceptable" list were judged to offer the best value for the money, in the order given. See listings under "Acceptable" for full details.

Emerson Model 427. \$24.95, list.

Motorola Model 61-L. \$34.95, list.

Admiral Model 78-P6. \$29.95, list.

Emerson Model 424. \$29.95, list.

ACCEPTABLE

(In order of quality without regard to price)

The following six radios were judged to rank close together in quality:

Pilot Model T-186 (Pilot Radio Corp., Long Island City, N. Y.). \$49.50, list. Heavy portable. Excellent volume and selectivity. Short wave band. Very slight shock hazard at external antenna and ground screw terminals.

Admiral Model 78-P6 (Continental Radio & Television Corp., Chicago). \$29.95, list. Tone somewhat boomy.

Emerson Model 424 (Emerson Radio & Phonograph Corp., NYC). \$29.95, list. Sensitivity excellent.

Motorola Model 61-L (Galvin Mfg. Corp., Chicago). \$34.95, list. Small portable. Volume excellent. Slight shock hazard at door hinges.

Emerson Model 427. \$24.95, list. Excellent sensitivity and volume on house current operation because of special tube.

General Electric Model LB-530 (General Electric Co., Bridgeport, Conn.). \$42.95, list. Tall portable. Operates on a non-spill storage battery rather than dry "A" and "B" batteries. (The battery is the *Willard Radio-20-2* listing at \$8.95 and is included in the above price.) Sensitivity and automatic volume control excellent. Tone Muffled. Slight shock hazard at screw heads on front panel.

The following three radios were judged to rank close together in quality:

Andrea Model 6G61 (Andrea Radio Corp., Woodside, L. I.). \$34.95, list. Long battery life. Slight shock hazard at external antenna screw terminal.

ACCEPTABLE—CONT'D

Emerson Model 428. \$34.95, list. Special midget radio loud speaker tube used on house current operation but volume although improved, was not exceptionally good.

Philco Model T843 (Philco Radio & Television Corp., Philadelphia). \$37.50, list. Large, heavy portable. Sensitivity excellent.

The following radio ranks next:

Sentinel Model 217-P (Electrical Research Laboratories, Inc., Evanston, Ill.). \$34.95, list. Large, heavy portable. Top excellent.

The following four radios were judged to be somewhat lower in quality than Sentinel Model 217 P which is listed above.

Andrea Model 6G63A. \$44.95, list. Poor volume. Extreme shock hazard at band switch lever and plate; slight shock hazard at external antenna screw terminal.

Zenith Model 6G601M (Zenith Radio Corp., Chicago). \$34.95, list. Heavy portable. Short battery life and undesirable battery pack. Slight shock hazard at screw heads on each side of the Radio. Earphone adaptor available.

RCA Model 25-BP (RCA Mfg. Co., Inc., Camden, N. J.). \$26.50, list. Lightweight portable. Poor volume.

Philco Model PT-88. \$25, list. Small, light portable. Sensitivity, automatic volume control and selectivity poor. Low battery life, but undesirable battery pack.

"PERSONALS"**BEST BUYS**

The following "personal" portables of the "Acceptable" were judged to offer the best value for the money, in the order given. See listings below for full details.

Sentinel Model 227. \$19.95, list. (Battery operation only.)

Zenith Model 4K600. \$22.95, list. (Battery operation only.)

Firestone Cat. No. S7397-1. \$21.45. (Three-way operation.)

Fada Model C34. \$24.35, list. (Three-way operation.)

(Continued next page)

ACCEPTABLE

(In order of quality without regard to price)

The following radio was judged to be outstanding in quality:

Zenith Model 4K600 (Zenith Radio Corp., Chicago). \$22.95, list. Battery operation only. Excellent sensitivity and volume.

The following three radios were judged to rank close together in quality:

Firestone Cat. No. S7397-1 (sold by stores of Firestone Tire & Rubber Co., Akron, Ohio). \$18.95 plus \$2.50 for batteries, total \$21.45, net. Three-way operation. Uses five small flashlight batteries which are expensive to replace. Flashlight battery cover can be placed in such a way as to short-circuit four of them. Shock hazard from chassis.

Fada Model C34 (Fada Radio & Electric Co., Inc., Long Island City, N. Y.). \$24.35, list. Large and heavy. Three-way operation. Tuning difficult. Sensitivity and volume better than average.

Sentinel Model 227 (Electrical Research Laboratories, Inc., Evanston, Ill.). \$19.95, list. Battery operation only. Better than average volume. Poor automatic volume control.

The following six radios were judged to be close in quality:

Motorola Model 3A5 (Galvin Mfg. Corp., Chicago). \$24.95, list. Three-way operation. Tuning somewhat difficult. Sample tested would not operate with volume control fully on.

Motorola Model A-1. \$19.95, list. Battery operation only. Tuning somewhat difficult. Automatic volume control better than average.

Farnsworth Model CT-59 (Farnsworth Television & Radio Corp., Marion, Ind.). \$19.95, list. Three-way operation. Similar in appearance to *Sentinel* below.

Sentinel Model 247. \$24.95, list. Three-way operation. Sensitivity, volume and automatic volume control poor. Slight shock hazard at front door hinges.

General Electric Model LB-502 (General Electric Co., Bridgeport, Conn.). \$24.95, list. Three-way operation. Similar in appearance to *Sentinel* above. Poor tone. Some shock hazard at front door hinges.

Emerson Model 432 (Emerson Radio & Phonograph Corp., NYC). \$22.95, list. Battery operation only. Smallest size

ACCEPTABLE—CONT'D

and weight of all radios tested. Tuning difficult. Poor tone. Better than average automatic volume control. Poor selectivity. Short battery life. Single flashlight cell which necessitates frequent replacement.

The following two radios were judged to be lower in quality than those above:

De Wald Model 410A (De Wald Radio Mfg. Corp., NYC). \$19.95, list. Battery operation only. Tuning very difficult. Poor tone.

Detrola Model 378 (Detrola Corp., Detroit). \$27.95, list. Three-way operation. Tuning very difficult. Poor sensitivity and selectivity. Low volume. Shock hazard.

RADIO BATTERIES

Retail stocks of radio batteries are low, and some batteries listed here may be unavailable in some parts of the country. Where you can get only untested local brands, the expiration date stamped on the battery should be your guide, since batteries deteriorate even when standing unused on the store shelf. Buy dated batteries where possible, preferably those dated close to a year ahead. If you can't find a dated battery, buy a brand that rates high in the following list from a store with reasonably rapid turnover. If you can, get a battery in a sealed carton; you will at least be sure that the dealer has not used it before selling it to you.

CU tested the F4 "A" battery (maximum dimensions $4\frac{1}{8}$ " in height, base $2\frac{5}{8}$ " square) and the 30BB "B" battery (maximum dimensions $5\frac{1}{2}'' \times 3\frac{5}{8}'' \times 1\frac{1}{8}''$), regarding them as the best compromise of weight and efficiency. These can be substituted in your portable radio for batteries of larger dimensions, provided the voltage is the same. If different voltage or a combination "A" and "B" pack is required, the ratings will still serve as a rough indication of the quality of the brands.

Some batteries with relatively short life spans are listed as "Acceptable," merely because they may be the only ones available in some places.

From the *Reports*, August 1942.

(Continued next page)

"A" BATTERIES

ACCEPTABLE*(In approximate order of quality without regard to price)***• DATED BRANDS*****Eveready*** No. 742 (National Carbon Co., NYC). 65¢. Excellent performance; longest life of the dated batteries tested.***Burgess*** No. 4F (Burgess Battery Co., Chicago). 50¢. Very good performance.***Bright Star*** No. 462 (Bright Star Battery Co., Chicago). 60¢. Very good performance.***Ward's*** Cat. No.—5021 (Montgomery Ward). 45¢ plus postage. Good performance.***Sears' Powermaster*** Cat. No.—5089 (Sears-Roebuck). 45¢ plus postage. Performance only fair; life slightly over half that of *Eveready*, above.***Port-A-Pak*** No. 247 (Acme Battery Co., NYC). 50¢. Performance only fair; life slightly over half that of *Eveready*.**• UNDATED BRANDS***The following are listed in approximate order of quality as determined by CU's tests. They should be bought only if good dated batteries are not available.****Philco*** No. P94 (Philco Radio and Television Corp., Philadelphia). 60¢. Samples tested were excellent; equivalent to the dated *Eveready*, above. Slightly larger than standard for this size.***Wizard*** No. D235. 50¢. Samples tested were excellent; equivalent to dated *Eveready*, above.***Usalite*** No. 634 (U. S. Electric Manufacturing Corp., NYC). 50¢. Samples tested gave very good performance.***General*** No. 4F1 (General Dry Batteries, Inc., Cleveland). 59¢. Samples tested gave good performance.

"B" BATTERIES

ACCEPTABLE*(In approximate order of quality without regard to price)***• DATED BRANDS*****Eveready Minimax*** No. 482. (National Carbon Co., NYC).

ACCEPTABLE—CONT'D

\$1.50. Excellent performance; longest life of batteries tested.

Sears' Powermaster Cat. No.—5079 (Sears-Roebuck). \$1.19 plus postage. Very good performance; life about three-quarters that of *Eveready*, above.

Burgess No. M30 (Burgess Battery Co., Chicago). \$1.50. Quality variable; one of samples tested was good, another poor. Examination of interior of batteries indicated inadequate zinc for satisfactory performance.

Eclipse No. 333 (Eclipse Battery Co., Inc., NYC). \$1.50. Performance relatively poor; life less than half that of *Eveready*, above. Slightly larger than standard for this size.

Bright Star No. 30-33 (Bright Star Battery Co., Chicago). \$1.50. Performance relatively poor; life less than half that of *Eveready*, above.

Acme No. 830 (Acme Battery Co., NYC). \$1.50. Performance relatively poor; life less than half that of *Eveready*, above.

• UNDATED BRANDS

The following are listed in approximate order of quality as determined by CU's tests. They should be bought only if good dated batteries are not available.

Willard No. WBM-1 (Willard Storage Battery Co., Cleveland). \$1.50. Samples tested were good; equivalent to dated *Sears'*, above.

Philco No. P200 (Philco Radio and Television Corp., Philadelphia). \$1.50. Samples tested gave poor performance. Slightly larger than standard for this size.

salite No. 640 (U. S. Electric Manufacturing Corp., NYC). \$1.50. Samples tested gave extremely poor performance; life was less than a fifth that of dated *Eveready*, above.

STORAGE BATTERIES

CU has tested three samples of the one true storage battery for a portable radio on the market, the *Willard Radio 20-2* (Willard Storage Battery Co., Cleveland), which is part of the *General Electric Portable Radio Model LB-530*. The battery can be recharged simply by being plugged into an electric socket.

The following precautions must be observed if this battery is to perform satisfactorily:

Since the leakproof features of the battery don't always

work, the radio should be kept in an upright position. The battery may leak around the filler cap unless care is taken to screw this down tightly.

The battery should be kept filled with water to within a quarter inch of the "full" mark. Water will have to be added about every month or six weeks.

If it is not used for some time, the battery needs occasional recharging, particularly in warm weather. Recharging is required, in fact, unless the radio is operated for four hours or more a day on alternating current. As the battery ages, recharging is required more and more frequently.

To be sure that the battery is not defective when you buy it, plug the radio into an electric socket and turn the switch to "Charge." If the blue indicating ball does not rise to the top within a few hours, return the battery. Never leave the switch in charging position when the plug is disconnected, or the battery will keep *discharging* although the radio doesn't play.

From the *Reports*, October 1942.

RUGS

The best buying advice on rugs at present is not to buy them at all, unless old stocks of all-wool rugs are available. Manufacturers are restricted to 25% of their last year's consumption of wool, and at best they can obtain only a very small amount of fine carpet wool. As a result, most rug and carpet fabrics now produced are a blend of coarse wool and rayon. No blend approaches an all-wool rug in durability. Furthermore, blends soil much more rapidly than wool and shrink more when shampooed. They mat excessively and recover their nap less after shampooing. But if you must buy a rayon-and-wool rug, don't buy one with less than 50% wool.

Hemp, cotton and jute are normally used for the backing of rugs and carpets. The first two are preferable, because jute tends to decay if it is wet for any length of time. No hemp is available at present, and stocks of jute may soon be entirely depleted. Backings are being made today of either cotton or paper yarns. When dry, paper yarns wear fairly well, but they become extremely weak when wet.

According to tests made by the Federal Bureau of Standards, density of pile is a major factor in determining the

durability of a rug. You can find out the relative density by counting the number of tufts per square inch on the back of a rug. Rare Orientals may have as many as 500 tufts per square inch; good *Wiltons* have about 120 and medium *Wiltons*, about 90; good *Axminsters* and *Velvets*, about 80; medium *Axminsters* and *Velvets*, about 60. Poor rugs of any weave may have as low as 25 tufts per square inch.

A pile made of worsted (combed) yarns will wear better and is more expensive than pile made of woolen (uncombed) yarns. Twisted yarns of two or more plies will also give extra wear for the same number of tufts per square inch.

It is usually advisable to select the better grades of less expensive weaves rather than the cheaper grades of more expensive weaves. In decreasing order of cost the most common weaves of rugs with cut-pile surfaces are *Wilton*, *Axminster* and *Velvet* (the term "Wilton-Velvet" is a misnomer). The tapestry weave has a loop pile, and rugs with it are generally cheaper than cut-pile rugs. The term Broadloom is correctly applied to any seamless rug woven 54 inches or wider, regardless of quality or weave.

Under-pads will add considerably to the life of a rug, besides producing a luxuriant feel of high pile—and they're relatively inexpensive. Pads increase the durability of rugs with short pile more than those with long pile.

RUG AND UPHOLSTERY SHAMPOOS

There are three types of rug and upholstery cleaners: dry cleaning solvents, and both soap and soapless sudsing compounds. Dry cleaning solvents are used mainly on fabrics which cannot be wet shampooed. Since they are dangerous and expensive, extensive use of them in the home is not recommended. Non-washable upholstery fabrics (silk, satin, velvet) cannot be shampooed, but should be dry cleaned. Mohair, velour, frieze or tapestry upholstery can be shampooed quite adequately in the home. As for rugs, home cleaning, no matter how well done, does not take the place of a good professional cleaning. But it can give an effective surface cleaning between professional jobs.

Before applying any shampoo, it is essential to test it on a small portion of the rug or upholstery to be sure that colors will not run or fade. It is best not to clean rugs of delicate

318 RUG AND UPHOLSTERY SHAMPOOS

tints at home. No shampoo, soap or soapless, should be applied directly to rugs or upholstery. To prevent too much wetting, work into a thick lather and apply only the suds.

Soap does a fairly good cleaning job and gives a thick lather, but it has several disadvantages. Its alkalinity may injure fabrics and colors; when used with hard water, it forms scum deposits; soap left in the fabric may decompose, giving off rancid odors and collecting dirt rapidly. An acid rinse, if used to dispose of the scum, forms fatty deposits which are just as bad as the scum.

Commercial soap cleaners or home-made soap solutions are better than plain soap. Liquid commercial cleaners, though more expensive, are better than the powders and pastes available. An effective, cheaper shampoo can be made at home by mixing three or four tablespoonfuls of ordinary soap flakes or powder in a gallon of hot water and adding one or two tablespoonfuls of water softener if the water is hard.

Soapless sudsing compounds are by far the best wet cleaners for rugs and upholstery. They give more abundant lather than soap solutions, clean effectively and have none of the serious defects common to soap. Those marketed as white powders are more economical than the liquids.

CU tested one or two samples each of 25 brands of rug and upholstery cleaners, ten of them of the soapless type. Since the soapless compounds were found to be generally superior to the soap solutions, the two types are rated separately. Ratings were based on percentage of dry content, percentage of soap (in soap types), alkalinity, cleaning and foaming ability, types of builders present, tendency to form scums. Net contents, packaging and labeling were checked.

In addition to the purchase price, the estimated cost of cleaning a 9 x 12 ft. rug or a three-piece upholstered suite is given in brackets for each brand. On the average, a pint of the ready-to-use or a gallon of the diluted solution is sufficient for cleaning either the rug or the suite.

From the *Reports*, June 1942.

SOAPLESS CLEANERS

BEST BUY

The following brand was judged to offer the best value for the money. For full details see listing under "Acceptable."
Co-op Synthetic Suds. 29¢.

ACCEPTABLE

(In order of quality without regard to price. Approximate comparative costs for cleaning standard size rug or upholstery set are given in brackets. Cleaners are for both rugs and upholstery unless otherwise noted)

Vapoo (Vapoo Products Co., Inc. NYC). \$1. [33¢]. Powder.

Aimcee (Associated Merchandising Corp., NYC)¹. 59¢. [59¢]. Liquid.

Co-op Synthetic Suds (National Co-operatives, Inc., Chicago). 29¢. [3½¢]. Powder.

Liquid Veneer (Liquid Veneer Corp., Buffalo). 34¢. [34¢]. Liquid.

Carbona Soapless Lather (Carbona Products Co., NYC). 25¢. [25¢]. Liquid.

O-Cedar (O-Cedar Corp., Chicago). 39¢. [26¢]. Liquid.

Foamclen (J.N.T. Manufacturing Co., NYC). 94¢. [94¢]. Liquid.

Zit (Wilbert Products Co., NYC). 45¢. [23¢]. Liquid.

The following two products were soapless-type cleaners, but contained alkaline builders:

Whisk (Whisk Co. of New York, NYC). 94¢. [16¢]. Powder.

Whisk Foam (Whisk Co. of New York). 74¢. [74¢]. Liquid. For upholstery.

SOAP CLEANERS**ACCEPTABLE**

(In order of quality without regard to price. Approximate comparative costs for cleaning standard size rug or upholstery set are given in brackets. Cleaners are for both upholstery and rugs unless otherwise noted)

Tavern (Socony Vacuum Oil Co., NYC). 59¢. [15¢]. Liquid.

Murphy's (Murphy-Phoenix Co., NYC). \$1. [25¢]. Powder.

Old English (The A. S. Boyle Co., Jersey City, N. J.). 19¢. [10¢]. Liquid. For rugs.

Maid of Honor Cat. No.—6578 (Sears-Roebuck). 44¢ plus postage. [22¢]. Liquid. For rugs.

Super Crystals (Irwin-Newman Products Corp., Brooklyn, N. Y.). 25¢. [8¢]. Powder. General household cleaner.

¹ For a list of AMC stores, see page 12.

ACCEPTABLE—CONT'D

- Ward's Rug Cleaner** Cat. No.—4009 (Montgomery Ward). 45¢ plus postage. [11¢]. Liquid.
- Spotless** (McLean Manufacturing Co., Detroit). 20¢. [3-1/3¢]. Powder. General household cleaner.
- Old English** (The A. S. Boyle Co.). 49¢. [25¢]. Liquid. For upholstery.
- Rainbow Foam** (C. W. Parker Co., Inc., Des Moines). 85¢. [43¢]. Liquid. For upholstery.
- Ward's Upholstery Cleaner** Cat. No.—4007 (Montgomery Ward). 44¢ plus postage. [22¢]. Liquid.
- Magicleaner** (Magic Cleaner Corp., NYC). 25¢. [25¢]. Liquid.
- Miracle Foam** (H. R. Davis Co., Oakland, Cal.). 65¢. [33¢]. Liquid.

NOT ACCEPTABLE

The following brands, marketed as "general household cleaners," were found to be strongly alkaline and with little foaming ability; they were therefore rated "Not Acceptable" for rug and upholstery cleaning.

Johnson's (Johnson Products Co.). 60¢. Liquid.

Rad (Milrose Products Co.). 25¢. Paste.

SEWING MACHINES

Stoppage of production should not prevent your getting a good buy if you need a sewing machine. There are excellent second-hand ones, especially since there have been no basic changes in design for many years. The numerous brand names mean little. Almost all domestic sewing machines are the product of four manufacturers: The Singer Sewing Machine Company, the White Sewing Machine Company, the National Sewing Machine Company and the New Home Sewing Machine Company. All but the first market their product under many names in addition to their own, and the same model frequently sells for less as a private brand than under the manufacturer's own name.

Sewing machines are no longer being sold by mail order houses, but you may still be able to get one at a mail order retail store. These are likely to be excellent values.

The most economical buy is a portable; the identical sewing head in a stationary model costs a good deal more, the

extra outlay going for furniture. Of course, if a machine is to see constant use, you may consider the convenience of a stationary model worth the difference in price.

Treadle operated machines are generally \$20 to \$40 cheaper than a corresponding model with electric drive. For occasional use the treadle machine is perfectly satisfactory, though the added expense of an electric machine is probably worth while for an experienced operator who sews a good deal. A motor can be attached quite simply to a treadle machine, and it will give satisfactory service provided the machine is not the long shuttle type.

Electric machines have the motor mounted for either belt or friction drive, or they have built-in motors with gear drive. Though more expensive, gear drive is best; friction drive is least satisfactory.

Most domestic machines today sew with a lock-stitch. The older chain-stitch machine has a simpler mechanism, but it does not lend itself well to special types of sewing, and the stitch unravels easily.

The lock-stitch machine uses two threads, the upper one fed from a spool, the lower from a bobbin. The needle draws the upper thread through the cloth and forms it into a loop. The lower thread passes through this loop to complete an interlocking stitch.

There are three types of bobbin or shuttle design used on lock-stitch machines. The "long-shuttle" variety produces considerable noise and vibration and is therefore unsuitable for use with an electric motor. But long-shuttle machines do an entirely satisfactory job. The "rotary" machine is quiet and vibrationless, hence best suited to electric operation. The "oscillating-shuttle" causes some noise and vibration but it can be operated satisfactorily with electric drive. Both rotary and oscillating-shuttle types are known as "round-bobbin" machines.

Of the features found only on newer models, the hinged presser foot, which automatically adjusts to different thicknesses of material, is worth having. It can be put on most old machines. However, the reverse sewing action on new models is an overrated feature, and is seldom worth the extra cost.

Except for mail-order brands, you may be able to get a discount or "trade-in allowance" on many sewing machines.

The ratings below are based on the recommendations of CU's sewing machine consultant. Factors considered were con-

struction and design of the sewing mechanism and, to some extent, presence of convenience features—easy tension (regulation of the tautness of the threads), stitch size adjustment, &c. It is impossible to rate individually all the brands on the market. But if you can learn the name of the manufacturer of a brand not listed, you may be able to judge its quality from the ratings.

From the *Reports*, January 1942.

ELECTRIC MACHINES

BEST BUY

The following machines of the "Acceptable" list were judged to offer the best value for the money, in the order given. For full details see listing under "Acceptable."

White Rotary Models 41 and 43. \$75 to \$124.50, list.

ACCEPTABLE

(In estimated order of quality without regard to price; prices given were list prices)

Singer Rotary Model 201 (Singer Sewing Machine Co., NYC). \$129 (portable) to \$196 (desk-style cabinet). All new refinements; gear-driven. Very smooth and vibrationless operation. Well adapted to rapid operation by an experienced sewer. Overpriced.

White Rotary Model 77 (White Sewing Machine Co., Cleveland). \$134 to \$160. Not available in portable style. Had "pop-up" presser-foot release and individual regulators for forward and backward stitch, not available on other *White* models. For most users, not worth the price difference over *White* Models 41 and 43.

Domestic (White Sewing Machine Co.). Same as *White* Model 77.

National Rotary Model R-40 (National Sewing Machine Co., Belvidere, Ill.). \$79 (portable) to \$149 (desk-style cabinet). Had reversing mechanism and hinged presser-foot. Another model, essentially the same as R-40, but without reversing mechanism, was available at about \$8 less.

Eldredge Model R-40 (National Sewing Machine Co.). Same as *National Rotary* Model R-40, and sells for about the same price. This machine is sold by R. H. Macy & Co., NYC, under their own name.

ACCEPTABLE—CONT'D

Singer Model 9913 (Singer Sewing Machine Co.). Sells for about \$13 less than **Singer** Model 201. Similar to 201 except that sewing mechanism is the oscillating type and is not so smooth in operation.

White Rotary Models 41 and 43 (White Sewing Machine Co.). Model 41, \$75 (portable); Model 43, \$82.50 (portable) to \$124.50 (desk-style cabinet). Mechanical and electrical details same for both models, but Model 43 had slightly better cabinets. Latest refinements, such as reversing mechanism and hinged presser-foot.

Free Westinghouse De Luxe Model ARE (New Home Sewing Machine Co., Rockford, Ill.). \$99.50 (portable) to \$130 (desk-style cabinet). All new improvements. Friction drive of improved type which minimizes slippage. Both top and bottom mechanisms gear-driven. Had "floating gib hook" to prevent threads from jamming around bobbin. Available in lightweight (#17) head of magnesium metal at same price.

New Home Model HR (New Home Sewing Machine Co.). Same as **Free Westinghouse** Model ARE, except for slightly different motor mounting, and sold for about the same price.

Free Westinghouse Model DA (New Home Sewing Machine Co.). Sold for about \$30 to \$40 less than Model ARE. Had many of ARE's features, including floating gib hook, but construction was inferior.

New Home Model AD (New Home Sewing Machine Co.). Same as **Free Westinghouse** Model DA; priced about the same.

NOT ACCEPTABLE

The following electric machines were rated "Not Acceptable" because they had long shuttles. Although they sew satisfactorily, excessive noise and vibration make their operation with electric drive unsatisfactory. The additional cost of a round bobbin machine is in most cases slight enough to make the purchase of an electric long-shuttle machine unwise.

New Home Long-Shuttle Model LN Head (New Home Sewing Machine Co.).

Paveway and **Paveway Regal** (National Sewing Machine Co.).

White Long-Shuttle Model 8 (White Sewing Machine Co.).

(Continued next page)

TREADLE MACHINES

ACCEPTABLE

(In estimated order of quality without regard to price; prices given are list prices).

White Model 113-135 (White Sewing Machine Co., Cleveland). \$90. A full rotary machine with all improvements.

Singer Model 66 (Singer Sewing Machine Co., NYC). \$95. Oscillating round bobbin sewing mechanism.

New Home Rotary Model AAE (New Home Sewing Machine Co., Rockford, Ill.). \$90. Similar to electric **Free Westinghouse Model** ARE.

New Home Long-Shuttle Model LN Head (New Home Sewing Machine Co.). \$10 less than **New Home Rotary** Model AAE. For the small price difference Model AAE was a much better buy.

LIGHTWEIGHT PORTABLES

ACCEPTABLE

Singer Model 221 (Singer Sewing Machine Co.). \$105. A true portable machine (weight, 11 lbs.), convenient for traveling. Very well built. Will do any type of sewing that a standard machine will, but slower and not so convenient to use.

Free Westinghouse (New Home Sewing Machine Co.). \$99.50. See listing of **Free Westinghouse Model** ARE above.

SHOWER CURTAINS

A shower curtain should be water-repellent, colorfast to hot soapy water and sunlight, capable of resisting the ravages of moisture, heat, sunlight and mildew. If the curtain is made of more than one piece of fabric, the seams should be strong. The metal rings at the top should be inserted in a reinforced strip or hem; the bottom should be adequately weighted. A guarantee of colorfastness is desirable.

Of the types of fabrics used for shower curtains, production of rubber sheeting and synthetic films like pliofilm is out for the duration; coated fabrics—a variety of materials coated

with pyroxylin, synthetic resins, rubber, *Koro seal*, &c.—are either off the market or scarce. But treated fabrics are plentiful, and they are the best in all around utility and long wear.

Cotton broadcloth, rayon broadcloth, cotton and rayon mixtures, ducks, taffetas, etc., are treated with chemicals to make them water-repellent to various degrees. The chemicals used for treating often act as mildew preventives. Duck curtains can now be found in attractive patterns, mildew proofed and water resistant.

Treated curtains should be kept clean and spread to dry after use. Soap should not be allowed to dry on them, as mildew grows on the soap and attacks the fabric.

From the *Reports*, July 1940.

SLIPCOVERS

Good slipcovers will protect upholstery from dust, wear and sunlight and can lend pleasing variety to the appearance of a room.

Tightly woven fabrics are most serviceable. Both fabric and trimmings should be colorfast and washable. If you intend to launder your covers and if they are exposed to sunlight, insist on a written guarantee as to shrinkage and colorfastness. If you cannot obtain a guarantee, wash a sample of the material; then compare it with the unwashed sample to see if it fades, and have the entire material laundered before cutting, to minimize further shrinkage.

A slipcover should fit smoothly but not tightly, since even preshrunk fabrics will shrink somewhat when laundered.

The most widely used fabrics for slipcovers are:

Chintz—a fairly thin but firmly woven fabric, either in solid color or printed design, usually finished with a glazed or shiny surface. This finish may or may not withstand washing, depending on the materials used in applying the glaze. The finish in the cheaper grades is usually not permanent.

Crash—a rather coarsely woven fabric with uneven yarns and texture, in solid colors or print design, made of linen or cotton, or mixtures of both. It may ravel in washing.

Cretonne—a printed fabric of linen or cotton in all varieties of weaves and finishes. Some chintzes come under this heading.

Homespun—a bulky fabric of cotton in rough-textured

weave and surface, but soft to handle. Usually not washable, because of shrinkage.

Muslin or sheeting—a plain cotton fabric, fairly thin and light in weight, used only in the cheaper grades of slip covers.

Sailcloth—a lightweight canvas type of fabric tightly woven and very strong.

"Dustite," "Dustone," and the like are terms used to designate tightly woven fabrics which are less porous than the average fabric, and thus more protective against dust.

"Fabric finishes" are now being applied to textiles to give them new properties. Of particular importance are finishes which make fabrics more crush- and moisture-resistant. If well applied, such finishes are of distinct advantage in slipcover materials.

From the *Reports*, April 1940.

APPROXIMATE YARDAGE AND LABOR COSTS

The yardage figures below allow for cord welted seams and box pleated skirts. The workroom requires two yards of material in addition if the welting is to be made of the same fabric.

Labor cost is strongly influenced by the location and reputation of the maker. The estimates here are the result of a spot survey made in 1940. Some increases in labor costs are to be expected.

| | APPROXIMATE YARDS OF MATERIAL | | CITIES AND LARGE TOWNS) | APPROXIMATE LABOR COSTS (\$) (IN |
|------------------------------------|-------------------------------|--------|----------------------------|---|
| | 50" | 36" | | |
| | WIDTH | WIDTH | | |
| 3-piece suite, 5 separate cushions | 28-30 | 38-40 | 23.00 | |
| Davenport, 3 cushions | 13-14 | 18-19 | 12.50 | |
| Armchair, 1 cushion | 7½ | 10½-11 | 10.00 | |
| Wingchair, 1 cushion | 8 | 11 | 10.00 | |
| Cogswell chair, 1 cushion | 7 | 9½-10 | 10.00 | |
| Studio couch, 3 cushions | 9-11 | 13-14 | 12.50 | |

LAUNDRY SOAPS

New tests and ratings on laundry soaps are scheduled for publication in the *Reports* early in 1943.

In previous tests, CU found that all laundry soaps of the same type, regardless of claims made, will wash clothes equally white under the same conditions of water hardness, temperature and mechanical action. Soaps should therefore be purchased on the basis of price and with consideration of the kind of water available.

In soft-water and slightly hard-water areas, silks, woolens and rayons can be washed with soap without builder (pure soap) while cottons and linens can be washed with built soap (soap with a mild alkali added). In moderately hard- and very hard-water areas it is more efficient to soften water first and then use soaps as with soft and slightly hard water; or use a soap containing sodium metaphosphate or sodium pyrophosphate as a builder.

Sodium pyrophosphate (available at Cooperative stores) and sodium metaphosphate (*Calgon*) form soluble compounds with hard water and are therefore the best water softeners to use. In addition, they are safe for silks and woolens.

From the *Reports*, July 1940.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Re-read them now and then.

VACUUM CLEANERS

If your old vacuum cleaner is in mechanically sound condition, you may be able to make it last years longer by replacing the rotating brush, cord, motor brushes, dust bag, or filter. If your old cleaner can't be made to work even with this overhauling, you may be able to find a bargain in a rebuilt cleaner. When rebuilt cleaners are bought from reliable firms with a guarantee that all worn-out parts have been replaced, and with a year's free service offered, good performance may be obtained with a substantial saving in the initial investment.

When buying a vacuum cleaner, you should consider cost, cleaning ability, convenience and suitability for your household's cleaning requirements. The best way to discover how a

cleaner rates in these respects is to try it out in your home together with other makes and types of cleaners.

Tank-type cleaners include attachments as standard equipment; with handle-type cleaners, attachments must be purchased separately at extra cost. Be reasonably sure that you'll use attachments before you order them. If you think you'll have great use for them, it may be better to buy a tank-type cleaner, for attachments are more easily connected to it than to the handle-type. If you expect to use attachments rarely or not at all, you'll probably find the handle-type simpler to use.

If you have light-colored rugs, avoid cleaners with aluminum nozzles; the aluminum may discolor the rugs.

Observing the following practices will help keep your cleaner in good condition:

1. Empty the dust bag frequently, preferably after each cleaning.
2. Every now and then, turn the bag inside out and brush.
3. Tank-type cleaners have filters; when these filters become clogged, replace them.
4. Replace worn electric cords by new rubber ones.
5. Have motor brushes and bearings inspected once a year; have worn-out brushes replaced and bearings repacked with grease.

To determine the relative dirt removal ability of cleaners rated below, special test methods were developed by CU technicians. Convenience of operation and maintenance, durability, safety and economy were also considered in rating.

You may not be able to buy the following brands new, since vacuum cleaners are no longer being manufactured. But these brand listings may help you in selecting from what remains on the market of new and rebuilt cleaners.

For more detailed buying advice on vacuum cleaners, see the *Reports*, October and November 1941. (Labor notes included.)

BEST BUYS

The following vacuum cleaners of the "Acceptable" list were judged to offer the best value for the money, in the order given. See listing under "Acceptable" for full details.

Electrolux 12-A Rebuilt. \$33.50. Tank type.

Co-op DeLuxe. \$29.95 plus \$8.95 for attachments. Handle type.

ACCEPTABLE*(In order of quality without regard to price)*

Hoover 60 (Hoover Co., North Canton, Ohio). \$82, list plus \$16.50 for attachments. Handle type. Very noisy. Attachments easily connected (in comparison with other handle type cleaners). In general, an excellent machine, but very much overpriced.

Electrolux 30 (Electrolux Corp., NYC). \$69.75, list. Tank type. Quietest of all cleaners tested. Attachments very easily connected. An excellent machine, but very much overpriced.

Hoover 305 (Hoover Co.). \$52.50, list plus \$13.13 or \$16.50 for attachments. Handle type. Noisiest of all cleaners tested. Attachments inconvenient to connect.

Ward's Cat. No.—991 (Montgomery Ward). \$44.95, plus transportation. Tank type. Attachments very easily connected.

Co-op DeLuxe (National Co-operatives, Inc., Chicago). \$29.95 plus \$8.95 for attachments. Sold only by co-operative stores. Handle type. Accessible motor brushes. Nap adjustment. Quite noisy. Attachments easily connected (for handle type). Two speeds.

Electrolux 12-A Rebuilt (rebuilt by the National Vacuum Cleaner Supply Co., 27 E. 14 St., NYC). \$33.50. Tank type. Attachments easily connected.

Eureka R-41 (Eureka Vacuum Cleaner Co., Detroit). \$49.95, list plus \$15.75 for attachments. Handle type. Accessible motor brushes. Nap adjustment. Attachments easily connected (for handle type). Two speeds.

Electrolux 20 (Electrolux Corp.). \$49.50, list including only three attachments: round brush, floor brush and small drapery nozzle. Sold only by house-to-house salesmen. Tank type. Less maneuverable than other tank cleaners because nozzle has no swivel. Attachments easily connected.

Magic-Aire 200 (Magic-Aire, Inc., Cleveland). \$64.50, list. Tank type. Attachments easily connected.

GE Skyline AVF17S (General Electric Co., Bridgeport, Conn.). \$49.95, list plus \$12.95 for attachments. Handle type. Accessible motor brushes. Nap adjustment. Attachments easily connected (for handle type).

Universal 830 (Landers, Frary & Clark, New Britain, Conn.). \$39.95, list plus \$9.00 for attachments. Handle type. Ac-

ACCEPTABLE—CONT'D

cessible motor brushes. Nap adjustment. Very noisy. Attachments easily connected (for handle type).

Hamilton Beach No. 26 (Hamilton Beach Co., Racine, Wis.). \$59.50, list. Tank type. Attachments easily connected.

Westinghouse K-503 (Westinghouse Electric Mfg. Co., Springfield, Mass.). \$49.95, list plus \$14.95 for attachments. Handle type. Very noisy. Attachments easily connected (for handle type).

Co-op 500 (National Co-operatives, Inc., Chicago). \$38.90. Sold only by co-operative stores. Tank type. Complete set of attachments included. Attachments easily connected. Two-speeds.

GE Air-Flo AVT-150 (General Electric Co.). \$59.95, list. Tank type. Attachments easily connected.

Universal E 50 (Landers, Frary & Clark). \$59.95, list. Tank type. Attachments easily connected, but hose connection came loose too easily.

Hoover 700 Factory Rebuilt (Hoover Co.). \$35.95, list plus \$16.50 for attachments. Handle type. Accessible motor brushes. Nap adjustment. Less maneuverable than other Hoovers tested. Very noisy. Attachments difficult to connect.

The list below gives the relative cleaning ability of all cleaners tested—from excellent to fair—with regard to any other features:

Hoover 60. \$32, list. Handle type.

Hoover 305. \$52.50, list. Handle type.

GE Skyline. \$49.95, list. Handle type.

Co-op DeLuxe. \$29.95. Handle type.

Electrolux 30. \$69.75, list. Tank type.

Magic-Aire 200. \$64.50, list. Tank type.

The following two cleaners were about equal in cleaning ability:

Hoover 700 Rebuilt. \$35.95, list. Handle type.

Universal 830. \$39.95, list. Handle type.

The following three cleaners were about equal in cleaning ability:

Electrolux 20. \$49.50, list. Tank type.

Eureka R-41. \$49.95, list. Handle type.

Electrolux 12-A Rebuilt. \$29.95. Tank type.

ACCEPTABLE—CONT'D

The following five cleaners were about equal in cleaning ability:

Westinghouse K-503. \$49.95, list. Handle type.

Hamilton Beach No. 26. \$59.50, list. Tank type.

GE Air-Flo. \$59.95, list. Tank type.

Co-op 500. \$38.90. Tank type.

Universal E 50. \$59.95, list. Tank type.

WATER HEATERS

For maximum efficiency and minimum cost in operating a water heater, CU offers the following suggestions:

1. Don't waste hot water. Repair dripping taps at once. Learn to economize on the amount of water you use for a bath or shower. Wash hands and dishes in a basin instead of in running water.

2. Don't overheat the water. If your heater has an automatic temperature regulator, set it for 120° and readjust it to 160° only on days when you need large amounts of very hot water.

3. Cut fuel costs in about half by insulating the tank with asbestos paper or with a two-inch layer of rock wool, tied in place and covered with a jacket of canvas or heavy cloth.

4. Long hot water pipes waste heat. If your heater is too far from the water taps, consider moving it closer.

5. Keep your heater and tank clean. A dirty heater of any kind uses much more fuel than a clean one.

Here are some additional tips on individual types of heaters:

Gas side arm heaters should be turned off as soon as the tank is hot, for economy as well as safety. Have an expert clean the heater and adjust it for maximum gas economy. Experiment (by checking your gas meter if possible) to find the most economical flame height; half to three-quarters of the maximum burning rate is generally about right. Gauge the amount of water you need at one time and then turn off the heater as soon as you have enough. Save fuel by doing as many jobs requiring hot water as possible at the same time of day. When you need only a small amount, heat the water in a kettle on the stove.

Automatic gas water heaters are simple to operate once the correct initial adjustments are made. Have them cleaned and regulated for the most economical operation.

(Continued next page)

Pot-stove coal-fired water heaters can be the least expensive to run if care is taken in feeding coal, removing ashes and tending dampers. Try using smaller, cheaper coal. It burns slower and gives better control and banking.

Automatic oil-fired water heaters may need a thorough cleaning of the burner parts once a month to keep them in good condition. In addition, the installation should be checked occasionally by a capable mechanic to see if it is adjusted for maximum efficiency. Check also to see which grade of oil gives the most heat at the lowest cost. No. 2 oil is the cheapest and heaviest in general use for domestic water heaters; use it if you can.

From the *Reports*, June 1942.

WEATHERPROOFING

• WEATHERSTRIPPING

Weatherstripping of doors and windows is one of the cheapest ways to conserve fuel. Flexible felt strips, which will soon be almost the only plentiful type, are the cheapest and the easiest to apply.

Attach the strips with small trunk tacks or carpet tacks (preferably rustproof). Close and lock windows and doors before applying weatherstripping.

Windows: Upper sash—attach stripping to outside of frame adjoining the sash. Before driving in the tacks, make sure that the contact edge of the strip presses snugly against the sash at all points. One piece of flexible strip can be used for the whole upper sash if carefully fitted into the corners.

Lower sash—weatherstrip from inside, using four separate pieces of stripping. Tack side strips to the face of the inside stop bead adjoining the sash, with the contact edge pressed against the face of the sash. Extend these strips from the top face of the inside sill to the top of the meeting rail. Tack piece across meeting rail to top of lower sash, with the contact covering the crack where sash rails meet. The piece will probably have to be in two sections to allow for the window lock. Across the bottom of the window, tack strip to the face of the sash, with contact edge pressing against the inside window sill.

Doors: Tack one length across bottom of door at the inside face with contact edge down, pressed firmly against the

threshold. If threshold is too worn to give tight fit, replace it before putting on stripping. A second length for sides and top is attached to door stops at the outside, with contact edges pressed firmly, though not too tightly against the face of the door.

Treat casement windows like doors, but on double ones put an additional strip along the inside face of the center crack.

A piece of weatherstripping along the bases of bedroom doors will prevent cold air from open windows from circulating through the rest of the house.

• STORM WINDOWS AND DOORS

Storm windows and doors are more expensive but more effective than weatherstripping; they provide a "dead" air space, which lessens heat loss. In exposed locations in cold climates they may pay for themselves in fuel savings in a single winter. If you can't afford them throughout the house, consider them for the side facing prevailing winter winds.

Storm windows and doors must be made by an expert, but the homeowner may be able to handle seasonal hanging and removal of them. Hang storm windows from the top of the frame on hangers, so that they may be propped open for ventilation. Make sure they fit tightly around the sash. A storm door with a small vestibule prevents inrushes of cold air.

The pamphlet, "Home Insulation, an Effective Conservation and National-Defense Measure," Information Circular 7166, is available without charge from the Bureau of Mines, U. S. Dep't of the Interior, Washington, D. C.

From the *Reports*, October 1942.

The Buying Guide is not intended for the bookshelf. Carry it with you when you go shopping. It is printed in this compact, pocket size so that it will be convenient to put in your pocket or handbag. It is fully indexed so that you will find it easy to use. Make your Buying Guide work for you.

Automobiles and Supplies

Manufacture of passenger automobiles ceased in February 1942; rationing of the national stock pile of new automobiles to essential users began in March. OPA was given authority in November to ration used automobiles also but declared it had no present intention of using this power.

New tires and tubes have been rationed since January 1942 and used tires and recaps since October. Nation-wide gasoline rationing was scheduled for December 1942 after having been applied in the East since May.

Automobiles, supplies, and services in general are subject to price control.

Automobile parts are manufactured in quantities sufficient to meet actual needs.

The various restrictions on purchases necessitate maximum care to utilize all supplies and equipment to best advantage.

ANTIFREEZES

Ethylene glycol or alcohol antifreeze preparations may be difficult to obtain because both are in great demand for war industries.

Ethylene glycol is the best antifreeze for general use, but it is expensive. If your radiator is not leakproof, denatured ethyl alcohol, which costs much less, is preferable. If you use alcohol, try to get denatured grain alcohol, since antifreeze made from methyl alcohol (methanol) is poisonous. But if the latter is the only kind of antifreeze available, try to guard against poisonous vapors by making sure that the cooling system is leakproof, and that the water never gets overheated.

When ethylene glycol is used, the cooling system thermostat of the car should be set no higher than 170° F.; with alcohol the thermostat must be set no higher than 155° F., or the alcohol will evaporate rapidly. Since the lower temperature may impair the performance of hot-water auto heaters, ethylene glycol antifreeze is preferable for cars equipped with heaters.

Some of the alcohol antifreezes have non-volatile oils added to serve as evaporation retarders. These retarders are of limited effectiveness, but antifreezes containing them are better buys

at about the same price than antifreezes without evaporation retarders.

Salt solutions, honey and other such sugar solutions, kerosene and fuel oil may damage the cooling system, and they should not be used so long as alcohol or ethylene glycol is available.

Both ethylene glycol and alcohol antifreezes can be preserved from one year to the next. Provided the cooling system of your car is leakproof, it is best to leave ethylene glycol in the radiator over the Summer. If the radiator is not leakproof, or if you are using alcohol, drain out the antifreeze, test it to be sure it is worth saving, and store it in tightly corked glass or earthenware jugs, carefully labeled.

Before using it in the Fall, re-test the solution and add more of the same antifreeze if necessary. Rustiness does not diminish the effectiveness of the solution, but do not pour any of the sediment from the bottom of the jug into the radiator. Rust inhibitor should be added to alcohol antifreezes before they are used for a second season.

Thorough cleaning of the radiator is advisable before the antifreeze is added. Also tighten all hose connections and have worn ones replaced. Have the water pump and cylinder head nuts tightened. (If the cylinder head gaskets are defective, it is especially important to have them replaced before adding ethylene glycol.)

When filling a radiator containing antifreeze, keep the water level about one inch below the opening of the overflow pipe (two inches if the motor is cold).

From the *Reports*, November 1938 and May 1942.

MOTOR OILS—WINTER AND SUMMER

It is wasteful to change motor oil every 1000 miles. If your car is equipped with an oil filter (most recent models are), the oil need be changed only twice a year, in spring and fall. If you drive only short stretches in Summer, with no heavy loads and no high speeds, you may be able to use light oil the year round. Even without an oil filter, you need not change more often than every 2000 or 3000 miles unless your car gets exceptionally hard usage.

Driving at moderate speed saves oil as well as tires, gas, and general wear and tear. Consumption of oil jumps sharply

as the speed of your car passes 40 m.p.h. Keep oil at the middle level on the bayonet gauge. An excess in the crankcase is wasteful and does no good.

You can make further savings if you've been paying 30¢ to 35¢ a quart. While most of the top ranking oils in CU's tests sold for 35¢, satisfactory ones were found at prices as low as 20¢ to 25¢ a quart. Oil purchased in 2-gallon cans is economical, but few of the readily available brands can be bought in such quantities.

Avoid unbranded bulk oils. CU's tests showed that they were generally of poor quality, especially those selling for 7¢ to 15¢ a quart (prices ranged from 7¢ to 30¢ per quart).

Oils with paraffin bases are generally preferable to those with naphthalene bases because they have a higher viscosity index (that is, their rate of flow changes least as temperature changes), and higher flash point (lowest temperature at which oil will ignite). But most brands are blends of various crudes. Pennsylvania crude oils are higher in paraffin content than other crudes, but even they don't have pure paraffin bases.

Oil should be changed twice a year because cold weather tends to thicken it, while warm weather makes it thin. A light oil is used in Winter and a heavier oil in Summer, to offset the temperature differences. In any season the lubricant must be thick enough at high engine temperatures to protect moving parts from excessive wear. Yet it mustn't be so thick that its own movement causes excessive friction.

SAE 10 and SAE 10W oils are recommended for Winter (SAE 10W is somewhat superior for use in extremely cold regions). SAE 20 and SAE 20W can also be used for most Winter driving, though they're not so thin as the "10" oils at low temperatures.

For extensive Summer driving one should change to SAE 30 oil.

• WINTER OILS

CU tested only oils labeled either SAE 10 or SAE 10W. All but one of the "Acceptable" oils met either 10 or 10W specifications, but only 8 out of 26 qualified as both 10 and 10W. Many sold as both 10 and 10W did not meet 10W specifications. The SAE numbers given in the ratings are those determined by CU's laboratory tests.

All of the 32 brands tested were purchased in 1-quart factory

sealed cans except *Co-op Blue Label*, *Co-op Red Label*, *Travelene* and *Belmont*, which came in 2-gallon cans. One to four samples of each brand were tested for viscosity index, viscosity at 0° F., flash point, color number, specific gravity, net volume (no samples were found short in volume). In rating, viscosity index was given greatest consideration.

• SUMMER OILS

38 brands were tested, all labeled SAE 30. All except *Macy's Re-refined*, which was SAE 40 (a heavier oil) were found to conform to SAE 30 specifications. One to four samples of each brand were tested for viscosity index, viscosity at 130° F., flash point, color, specific gravity, corrosive and "pour point" characteristics and net volume. Ratings are based on these factors, with viscosity index being given the greatest weight.

From the *Reports*, January and May 1942.

WINTER OILS

BEST BUYS

The following oils of the "Acceptable" list were judged to offer the best value for the money, in the order given. For full details, see listings under "Acceptable" below.

Travelene. \$1.59 for a 2-gal. can; 20¢ per qt. SAE 10.

Sears' Cross Country. Cat. No.—4501F. 21¢ plus transportation. SAE 10.

Co-op Red Label. \$1.49 for a 2-gal. can; 18.6¢ per qt. SAE 10.

Co-op Blue Label. \$1.10 for a 2-gal. can; 13.7¢ per qt. SAE 10.

ACCEPTABLE

(In order of quality without regard to price. Prices given are for quart cans, except where otherwise noted.)

Esso No. I (Standard Oil of Pennsylvania, New Jersey and Louisiana). 35¢. SAE 10 and 10W. This brand should not be confused with the *Esso No. 1*, sold by the Colonial Beacon Oil Co., listed below.

Gulf lube (Gulf Refining Co.). 25¢. SAE 10 and 10W.

Mobil oil (Socony-Vacuum Oil Co.). 30¢. SAE 10 and 10W.

(Continued next page)

ACCEPTABLE—CONT'D

- Travelene** (Strauss Stores Corp., NYC). \$1.59 for a 2-gal. can; 20¢ per qt. SAE 10.
- Atlantic** (Atlantic Refining Co.). 25¢. SAE 10 and 10W.
- Tyrol** (Tide Water Associated Oil Co.). 25¢. SAE 10 and 10W.
- Quaker State** (Quaker State Oil Refining Corp.). 30¢. SAE 10.
- Gulfpride** (Gulf Refining Co.). 35¢. SAE 10 and 10W.
- Sears' Cross Country** Cat. No.—4501F. (Sears-Roebuck). 21¢ plus transportation. SAE 10.
- Texaco** (The Texas Co.). 25¢. SAE 10 and 10W.
- Sinclair Pennsylvania** (Sinclair Refining Co.). 30¢. SAE 10 and 10W. Samples tested failed to show close uniformity.
- Essolube** (Colonial Beacon Oil Co.). 25¢. SAE 10.
- Co-op Red Label** (Eastern Co-operative Wholesale, Inc., NYC). \$1.49 for a 2-gal. can; 18.6¢ per qt. SAE 10.
- Shell X-100** (Shell Oil Co., Inc.). 35¢. SAE 10.
- Pennzoil** (Pennzoil Co., Inc.). 35¢. SAE 10.
- Kendall** (Kendall Refining Co.). 35¢. SAE 10.
- Ward's** Cat. No.—7355 (Montgomery Ward). 21¢ plus transportation. SAE 10.
- Co-op** (Consumers Co-operative Ass'n, North Kansas City, Mo.). 25¢. SAE 10.
- Co-op Blue Label** (Eastern Co-operative Wholesale, Inc., NYC). \$1.10 for a 2-gal. can; 13.7¢ per qt. SAE 10.
- Golden Shell** (Shell Oil Co., Inc.). 25¢. SAE 10.
- Koolmotor** (Cities Service Oil Co.). 35¢. SAE 10.
- Richfield** (Richfield Oil Corp. of N. Y.). 25¢. SAE 10W.
- Havoline** (Indian Refining Co.). 30¢. SAE 10.
- Amoco** (American Oil Co.). 25¢. SAE 10.
- Lubrite** (Socony-Vacuum Oil Co.). 25¢. SAE 10.

The following brand was found to be a good oil of high viscosity index, but samples tested met SAE 20 and 20W specifications, not SAE 10 or 10W.

Esso No. 1 (Colonial Beacon Oil Co.). 35¢. SAE 20 and 20W.

NOT ACCEPTABLE

- Iso-Vis** (Standard Oil Co. of Indiana). 30¢. Had a fairly high viscosity index but an excessively low flash point, indicating kerosene dilution.

NOT ACCEPTABLE—CONT'D

- Ring Free** (Macmillan Petroleum Corp.). 35¢. Low viscosity index. Had highest viscosity at 0° F. of all oils tested.
- Phillips 66** (Phillips Petroleum Co.). 30¢. Low viscosity index.
- Opaline** (Sinclair Refining Co.). 25¢. Low viscosity index.
- Belmont** (Strauss Stores Corp.). 96¢ for a 2-gal. can; 12¢ per qt. Low viscosity index and flash point. Met SAE 20 and 20W specifications, not SAE 10 as labeled.
- Sunoco** (Sun Oil Co.). 25¢. Very low viscosity index and flash point.

SUMMER MOTOR OILS**BEST BUYS**

The following oils of the "Acceptable" list were judged to offer the best value for the money in order of quality. For full details see listings under "Acceptable."

Essolube. 25¢.

Travelene. 22¢.

Ward's Cat. No.—7355. 21¢.

Penn Supreme. 23¢.

Co-op Red Label. \$1.69 for 2-gal. can; 21¢ per qt.

Co-op Blue Label. \$1.19 for 2-gal. can; 15¢ per qt.

ACCEPTABLE

(In order of quality without regard to price; prices given are for quart cans except where otherwise noted)

Gulf Pride (Gulf Refining Co., Pittsburgh, Pa.). 35¢.

Esso No. 3 (Colonial Beacon Oil Co., Boston). 35¢.

Essolube (Colonial Beacon Oil Co.). 25¢.

Conoco-Nth (Continental Oil Co., Ponca City, Okla.). 30¢.

Quaker State (Quaker State Oil Refining Corp., Oil City, Pa.). 35¢.

Travelene (Strauss Stores Corp., Brooklyn, N. Y.). 22¢.

Pennzoil (Pennzoil Co., Oil City, Pa.). 35¢.

Havoline (Indian Refining Co., Indianapolis, Ind.). 35¢.

Kendall (Kendall Refining Co., Bradford, Pa.). 35¢.

Ward's Cat. No.—7355 (Montgomery Ward). 21¢.

Triton (Union Oil Co. of California, Los Angeles). 30¢.

(Continued next page)

ACCEPTABLE—CONT'D

- Shell-Penn** (Shell Oil Co., NYC). 35¢.
- Penn Supreme** (Western Auto Supply, Los Angeles). 23¢.
- Mobiloil** (Socony Vacuum Oil Co., NYC). 30¢.
- Signal 4 Star** (Signal Oil Co., Los Angeles). 25¢.
- Sinclair Pennsylvania** (Sinclair Refining Co., NYC). 30¢.
- Penn Co-op** (Consumers Cooperative Ass'n, North Kansas City, Mo.). 30¢.
- Amoco** (American Oil Co., Baltimore). 25¢.
- Iso-Vis** (Standard Oil of Indiana, Chicago). 30¢.
- Conoco Germ Processed** (Continental Oil Co.). 30¢.
- Atlantic** (Atlantic Refining Co., Philadelphia). 25¢.
- Co-op Red Label** (Eastern Cooperative Wholesale, Inc., Brooklyn, N. Y.). \$1.69 for 2-gal. can; 21¢ per qt.
- Co-op Blue Label** (Eastern Cooperative Wholesale, Inc.). \$1.19 for 2-gal. can; 15¢ per qt. Almost identical in quality to *Co-op Red Label* above. Though this oil had a somewhat lower viscosity index than the brands listed above, it was sufficiently high to be satisfactory for any ordinary use.
- Tydol** (Tide Water Associated Oil Co., NYC). 25¢.
- Lubrite** (Socony-Vacuum Oil Co.). 25¢.
- Phillips 66** (Phillips Petroleum Co., Bartlesville, Okla.). 30¢.
- Sears' Cross Country** (Sears-Roebuck). 20¢. Samples showed considerable non-uniformity. Sold in retail stores only.
- Franklin Processed** (Pennant Oil & Grease Co., Los Angeles). 25¢.
- Cities Service** (Cities Service Oil Co., NYC). 25¢.
- Texaco** (The Texas Co., NYC). 25¢.
- Richfield** (Richfield Oil Corp., NYC). 25¢.
- Gulf Supreme** (Gulf Refining Co.). 20¢.
- Sinclair Opaline** (Sinclair Refining Co.). 25¢.
- Macmillan Ring-Free** (Macmillan Petroleum Corp.). 35¢. Very low viscosity index.
- Belmont** (Strauss Stores Corp.). 18¢. Very low viscosity index.
- The following oil failed to meet SAE 30 grade, but did meet SAE 40. It had a fair viscosity index and quality, and may be considered "Acceptable" as an SAE 40 oil.*
- Macy's Re-refined** (R. H. Macy & Co., NYC). \$1.19 for 2-gal. can; 15¢ per qt.

NOT ACCEPTABLE

Sears' Gold Crest Cat. No.—4476F (Sears-Roebuck). 59¢ for 5-qt. can; 12¢ per qt. Excessively low viscosity index and flash point.

Sunoco (Sun Oil Co., Philadelphia). 25¢. Excessively low viscosity index and flash point.

TIRE CARE

For maximum tire life, never drive your car more than 35 miles per hour on the highway, nor more than 25 or 30 in the city.

Accelerate slowly; shift into high gear at 10 mph. Take corners slowly; slow down to a stop gradually. If brakes lock the wheels despite careful application, have them readjusted or relined. If clutch "grabs" and spins the wheels in starting, have it fixed.

Check tire pressures at least once a week, preferably twice, and after sharp temperature changes. When tires ride hard because driving has warmed them up and raised the pressure, do not let the air out. Keep all valve caps screwed tight.

Four-ply tires smaller than 6.00 inch (except the very old high pressure tires): inflate to 30 pounds; other four-ply tires: 28 pounds; six-ply tires: 36 pounds. If you overload your car, go two or three pounds higher temporarily. Otherwise, do not overinflate.

Avoid holes in the road, loose stones, broken glass and sharp bumps. Reduce speed on rough roads. Stay off unsurfaced roads if possible. Park slowly to avoid hard blows against curbstones; do not rub tires against them.

If a tire goes flat, *drive no further* on it. Stop gradually, well off the road if possible. Be alert to detect a soft tire by the way the car handles. A soft rear tire makes the car "wander" from side to side. A soft front tire "pulls" steadily to one side.

See that front wheels have good alignment and that no wheels wobble. Check front wheel toe-in on a drive-over gauge monthly, and after striking rocks or curbs with force. Wide variations from normal toe-in should be corrected. If tires show abnormal wear or cupping in 4000 miles, "caster" and "camber" angles of front wheels should also be adjusted.

Examine tires frequently for cuts; remove imbedded stones, glass or nails. Have a tire repair man treat (preferably vulcanize) deep cuts. Keep tires free of grease and oil, and out of strong sunlight as much as possible.

Switch tires every three or four thousand miles to equalize wear. Include the spare if serviceable. If your tire-rotating plan retains front tires on front wheels, interchange front wheels and reverse the tires, inside to outside, on their rims.

Small nail holes in a casing are self-sealing; a cold-patch on the inner tube is sufficient for repair. Larger cuts reaching to or through the cord fabric and breaks that show up inside the casing should be vulcanized. If you still can get it done, have such spots rebuilt. It's an expensive job, but the alternative is slow ruin of the irreplaceable casing.

In general, no "tire savers" that can be painted onto tires, puttied into cuts or squirted into the inner tube will benefit the motorist. The only sound tire-preserving accessories to buy are a tire gauge and hand tire pump.

If you're allowed a new tire, buy a well-built one that will stand many recappings; buy first quality tubes, for they too must last for years.

When you buy a recapped tire, or offer one for recapping, have the tire put on a spreader and inspect the inside carefully. No cracks or breaks should show inside, and rebuilt spots must be small. Have your tire recapped as soon as the light colored breaker strip shows through the tread unless other injuries preclude recapping; casing with fabric plies worn through is unfit for retreading or recapping.

The camelback used for retreading or recapping comes in many grades, but present WPB specifications for passenger car tires call for Grade F, made entirely of reclaimed rubber. Re-claim gives only one-third the mileage of new rubber, due mainly to greater heating up in running. Over 40 mph is ruinous.

In the future, camelback may be made of Thiokol, a synthetic rubber-like product, or of cotton sleeves impregnated with tar-like material. The former will give about 4000 or more miles of service at speeds below 35 mph; the latter will last for about 3000 miles at very slow speeds (especially around corners).

When rebuilding and vulcanizing will no longer help the carcass of the tire, a reliner over the whole casing interior

may still add several thousand miles of use to the tires if applied with care and skill, but very slow driving and careful maintenance of tire pressure are essential. Never install a reliner, boot or blowout patch in a casing that vulcanization will repair, as the casing will eventually be chafed to the point of ruin.

Do not have tires regrooved or recut if they're worn smooth. Cutting detracts from the tire's already limited strength. Smooth tires have the advantage of less rolling resistance; they are safe provided speeds are kept very low on slippery pavements.

From the *Reports*, February 1942, June 1942 and September 1942.

TIRE GAUGES

It's a good idea to have your own tire gauge, for proper inflation is vital for your tires.

CU bought three samples of each of eight widely distributed brands of tire gauges and checked their accuracy in an automotive laboratory. The ratings are based on average readings taken from each set of samples; wide variations within a brand are noted.

Several of the gauges were inaccurate, but none read too high, i.e., none would cause tires to be underinflated. (Underinflation causes excessive tire wear.)

In a test of 10 filling station gauges, only four were found to be accurate. Gauges at most chain filling stations are checked periodically against a master gauge; checking is less likely at independent stations. Before inflating your tires at a station, it's wise to learn when the last inspection, if any, was made.

If you buy your own gauge, test half a dozen if possible, and buy one that gives an average reading on one of your tires. Then try to arrange to test your gauge against a master gauge at a filling station or tire repair shop.

In using a hand gauge, check the pressure before inflating each tire as well as afterward. A low reading on one tire only is a good indication of leakage. After inflation, see that each valve cap is screwed finger tight.

From the *Reports*, September 1942.

(Continued next page)

BEST BUY

The following was judged to offer the best value for the money. For full details see listing under "Acceptable."

Cross Country. 85¢.**ACCEPTABLE**

(In order of accuracy of samples tested)

Cross Country (Sears-Roebuck & Co.). Cat. No. 28D1076.

Store price, 85¢. Pencil-type. Apparently identical with *Acme*, below, but the samples tested were much more accurate. Construction and finish, fair. Accuracy, very good. Legibility of dial, fair. Maximum deviation, 1 lb. too low.

Acme (Acme Air Appliance Co., Brooklyn, N. Y.). 89¢ in Western Auto Stores. Clock- or dial-type. Plastic case, with air chuck threaded into plastic. Finish good. Samples very accurate, but less rugged than pencil-type. Legibility of dial good. Maximum deviation, 1 lb. too low.**Supreme** (Montgomery Ward & Co. stores only). 75¢. Pencil-type. Similar to *Supreme*, below. Legibility of the scale poor, blade construction fair, exterior finish (on *Ward's* model only) good. Maximum deviation, 1½ lb. too low.**Select** (Select, Brooklyn, N. Y.). 98¢ in A. C. Schwarz Co. Stores, NYC. Pencil-type. Blade loose. Exterior finish fair. Scale quite difficult to read. Maximum deviation, 1½ lb. too low.**Schrader** (A. Schrader's Son, Brooklyn, N. Y.). \$1.25. Pencil-type. Good construction, legible scale, calibrated in individual pounds and strong blade. Accuracy only fair. Maximum deviation, 3 lb. too low.**Supreme** (Triple X Stores and others.). 69¢. Pencil-type. Construction similar to *Ward's* above, but inferior exterior finish. Accuracy of samples varied widely. Fairly rugged construction, but scale hard to read. Maximum deviation, 3 lb. too low.**Acme** (Acme Air Appliance Co., Brooklyn, N. Y.). 98¢. Pencil-type. Apparently identical with Sears' *Cross Country*, above, but samples tested were more inaccurate. Legibility fair. Maximum deviation, 2 lb. too low, but all samples tested deviated considerably from correct value.**NOT ACCEPTABLE****Rex** (Rex Accessories Co.) \$1.25, with cloth carrying case.

NOT ACCEPTABLE—CONT'D

Clock-type. Heavy. Small scale, hard to read accurately. Accuracy of samples very poor. No pin for letting air out of tires. Maximum deviation, 4 lb. too low.

USED CARS

Here are some rules and tests to help you buy a used car. But first make sure that you absolutely must have one.

Stick to simpler models, e.g., Sixes instead of Eights.

Favor lower-priced newer cars as against older models of expensive cars. Cost of parts and operating expense is less for smaller cars.

Buy from a dealer of good reputation, preferably in your own neighborhood. Get him to guarantee the car in writing for a stated period, or to share the cost of repairs over the period. Identify the car by motor number and year in the National Automobile Dealers Ass'n's catalog or other trade book. Cars built late in a model year are apt to be better buys.

Inspect the car in bright light, not in a garage. These are signs that the car has been damaged: body dents that have been filled in; new fenders, running boards or bumpers; doors that spring or drag (when you drive the car, test these with one wheel on the curb, so that the car is on a slant).

Disregard speedometer mileage. These are signs of hard usage: floor mats and pedals that have been replaced or show hard wear; sharp ends of broken springs in the upholstery; a repainted body. Inspect tires for regrooving (which adds nothing to the life of smooth tires).

Make the following tests for mechanical defects:

Push clutch pedal with one finger; there should be at least an inch of free play. Test steering wheel for play; over two inches of rim travel is excessive, and adjustment isn't always possible.

Apply brakes hard (hold pedal down two minutes if hydraulic); two inches should remain between foot and floor.

With ignition switch off, press starter switch briefly 8 or 10 times. Worn or broken teeth will clash or grind.

Check front-wheel alignment on a floor-pan gauge. By shaking one front wheel to and from you while someone applies the foot brake, test for looseness of king pins (have the wheel jacked up if possible).

Look under the car for oil leaks.

(Continued next page)

Open the hood and look for water leaks (dusty or rusty stains or brown froth). If fan belt has been renewed, mileage is probably above 30,000 miles; if it is worn on one side, pulleys are out of line.

Look at battery connections for corrosion; have the battery checked before you buy the car.

Start the engine and let it warm up. (Clicks or knocks are a bad sign). Then put gears in high, set hand brake hard, gradually open the throttle and let back the clutch. The clutch should take hold gradually, not grab or slip. The engine should finally stall; if it doesn't, reject the car. Also reject a car that emits blue smoke at the exhaust when you race the motor.

Make the following driving tests:

Put 40 lb. of air in all tires and drive a short distance over a rough street to bring out body looseness, squeaks, rattles; spring shackles that have been drawn up tight to stop rattles will cause a choppy ride. Then reduce pressure to the proper level for the car.

Set the car moving forward, then backward, several times, by releasing the clutch gently. A worn clutch will engage with a jerk; a warped one will cause chatter and vibration. Looseness in universal joints, etc., will also show up.

To determine unsafe sticking of steering gear, turn corners sharply in both directions. On a level surface with no cross wind the car should travel a block without drifting. Watch the car as it is driven toward and away from you to see that wheels don't wobble. Reject the car if rear wheels don't follow in the track of front ones.

On a quiet, smooth street listen for pronounced hum or grind of rear axle while (a) accelerating gently, (b) slowing down with foot off accelerator, (c) coasting with gears in neutral. Reject a car with front part of differential case lower than the center of axle if there is any noise.

Make several quick stops while going 20 mph. If car swerves have brakes equalized *before* you buy the car.

At about 12 mph. apply brakes while pressing down accelerator. Do not stall car with brakes until accelerator reaches the floor. Disregard "pinging" noises from engine and listen for hollow knocking from bearings. If some are louder than others, there are loose bearings. Very loose ones are cause for rejection.

With brakes, slow the car in high to 3 mph., then release

brake and open throttle halfway. Deficient valves, carburetor or ignition will cause bucking or skipping. Climb a fairly steep hill in high at 12 mph. and open the throttle; the car will buck if ignition or valves are in bad shape.

Accelerate from a standstill to 15 mph. in low gear with throttle wide open. Worn transmission gears or bearings will groan and howl.

Test the car on a distance trip. The oil level on the dipstick should not go down more than $\frac{1}{4}$ inch in 50 miles. Check the gasoline mileage with a tenth-gallon or other mileage tester.

After driving some distance, check for water leaks and overheating. See that brakes will maintain their power on a long hill when hot. Check the road-holding ability of the car at good speed over a rough road. Reject it if it does not handle safely.

From the *Reports*, February 1942. (Labor notes included.)

Remember that the value of a product, whether it is a small private brand or a major nationally advertised brand, may change, and without any notice to the buyer. Substitutions of cheaper materials and increases in prices, particularly in these times, may alter relative ratings. The Buying Guide cannot record these changes; but frequently they will be covered in the regular monthly issues. Be sure to consult coming issues of the Reports for new ratings. Make sure, before any important purchase, that there are no more recent ratings of the product in the Reports.

Miscellaneous

CARBON PAPER

Carbon paper comes in a wide choice of weights, styles and finishes to suit individual typing needs. If much typing is done, it pays to choose among them according to the work and the touch of the typist. Those who strike heavily on the keys should choose a hard-coated carbon paper. If many copies have to be made, it's best to use lightweight carbon paper, even though it won't last so long as heavier paper. For home use, standard weight, standard finish are most serviceable.

TYPES OF CARBON PAPER FOR VARIOUS USES

(Based on using 16 or 20 lb. first sheets, 13 lb. or less for copy sheets)

| NO. OF COPIES | TYPISTS WITH AVERAGE STROKE | | | TYPISTS WITH HEAVY STROKE | | |
|----------------------|--------------------------------|-------------|----------|------------------------------|--------|--|
| | TYPE | WEIGHT | FINISH | WEIGHT | FINISH | |
| 1 or 2 | Pica or | | | | | |
| | Elite Standard | Medium | Standard | Hard | | |
| 1 to 4 | Pica Standard | Medium | Standard | Medium hard | | |
| 1 to 4 | Elite Standard | Medium hard | Standard | Hard | | |
| 5 to 10 | Pica Light | Medium | Light | Medium hard | | |
| 5 to 10 | Elite Light | Medium hard | Light | Hard | | |
| Over 10 ¹ | Pica Light | Medium soft | Light | Medium | | |

¹ Use a typewriter with hard platen.

CU tested 30 brands of standard-weight, medium-inked carbon paper. Two kinds of test were given—one to determine the number of consecutive copies which could be made from each sheet, the other to learn the number of legible copies which could be made at one typing. Constant test conditions were assured by the use of an electric typewriter and typing sheets of standard weight and thickness.

From the *Reports*, April 1941.

BEST BUYS

Tablet (J. J. Newberry Stores). 10¢ for 15 sheets; cost per 100 sheets, 67¢. Price makes it a "Best Buy." Sixth in order of quality.

Kreko (S. H. Kress Stores). 10¢ for 18 sheets; cost per 100 sheets, 56¢. Price makes it a "Best Buy." Eleventh in order of quality.

ALSO ACCEPTABLE

(In order of quality without regard to price)

Old Town No. 81 (Old Town Co., NYC). \$2.50 per 100 sheets. Highest quality of all papers tested.

Sears' Aristo Cat. No.—4739 (Sears-Roebuck). 84¢ for 25 sheets; cost per 100 sheets, \$2.79 plus postage.

A & W (Ault & Wiborg Carbon & Ribbon Co., NYC). \$2.50 per 100 sheets.

Old Oak Tree (F. S. Webster Co., NYC). \$2.50 per 100 sheets.

Diamond (Miller-Bryant-Pierce Co., Aurora, Ill.). \$2.50 per 100 sheets.

Silkarbon No. 8038 (Peerless-Key-Imperial Mfg. Co., Newark, N. J.). \$2.10 per 100 sheets.

Special Quality (Neidich Process, Div. of Underwood-Elliott-Fisher Co., Burlington, N. J.). \$2 per 100 sheets.

Pinnacle (Columbia Ribbon & Carbon Co., NYC). \$3.50 per 100 sheets.

Copyright (A. Carlisle & Co., San Francisco). \$3.50 per 100 sheets.

Flora Belle (Lowthorp Office Specialities, NYC). \$1.50 per 100 sheets.

Vogue (Royal Typewriter Co., Inc., NYC). \$2.50 per 100 sheets.

Type Bar No. 3223 (L. C. Smith & Corona Typewriter Co., NYC). \$2.50 per 100 sheets.

Kee Lox (Kee Lox Mfg. Co., Rochester, N. Y.). 40¢ for 25 sheets; cost per 100 sheets, \$1.25.

Buccaneer (Carter's Ink Co., Boston). \$2.25 per 100 sheets.

CD (Cooperative Distributors, NYC). \$1.20 per 100 sheets, plus postage if ordered by mail.

Husky (University Book Store, Seattle). \$1.83 per 100 sheets.

Tri-Lined No. B 8578 (Tru-Rite, Inc., NYC). \$1.50 per 100 sheets.

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ALSO ACCEPTABLE—CONT'D

Kresco (S. S. Kresge Stores). 10¢ for 18 sheets; cost per 100 sheets, 83¢.

Columbia "8400" (Columbia Ribbon & Carbon Mfg. Co., Glen Cove, L. I.). \$2.75 per 100 sheets.

Tri-Lined No. A 754 (Tru-Rite, Inc.). \$2.50 per 100 sheets.

Remtico No. 5871 (Remington Rand). \$2.25 per 100 sheets.

Underwood No. 234Y (Underwood-Elliott-Fisher Co., NYC). \$2.50 per 100 sheets.

Herald Square (F. W. Woolworth Stores). 10¢ for 13 sheets; cost per 100 sheets, 77¢.

Ward's Cat. No.—8531 (Montgomery Ward). 18¢ for 25 sheets; cost per 100 sheets, 65¢ plus postage.

Stafford's (S. S. Stafford, Inc., NYC). 55¢ for 25 sheets; cost per 100 sheets, \$2.

NOT ACCEPTABLE

Lyncrest (W. T. Grant Stores). 10¢ for 13 sheets; cost per 100 sheets, 77¢. The inking on the paper was unevenly applied, showing dark and light spots. The light spots did not record any copy and copies were spotted and weak even where inking was present.

CIGARETTES

After extensive testing, CU concluded that the general preference for the regular priced (so-called "15¢") brands of cigarettes rather than those which sell for several cents less (so-called "10¢" brands) is due to habit or advertising, rather than any real taste preference. The typical pack-a-day smoker of "15¢" cigarettes could easily save about \$11 a year by switching to "10¢" brands.

"Blindfold" tests of eight of the leading brands of cigarettes, including **Lucky Strike**, **Camel**, **Chesterfield**, **Old Gold**, **Philip Morris**, **Avalon**, **Domino**, and **Sensation**, showed that most smokers couldn't tell them apart. On the whole, they couldn't tell "10¢" brands from "15¢" brands, nor could they recognize whether or not they had been given duplicates, when the names were concealed. Even smokers who had been smoking a particular brand for years, and who insisted upon smoking that and no other, couldn't pick it out when it was one of two or three different brands presented to them.

From the *Reports*, September 1941.

FOUNTAIN PENS

If you need a fountain pen, buy it now, because material shortages will soon affect both quantity and quality. Though the price of cheap pens may be way up, the prices of better ones have changed little since 1941.

For \$3 to \$5 you can get a good pen. Pens costing more than \$5 have no better workmanship or basic materials, merely more expensive design or decoration. Buy standard makes rather than so-called "jobber-assembled" pens, which consist of different parts from many makers (the source changing from time to time), often assembled without skill or care.

A good pen should not scratch when tried out without ink; it should write smoothly; the ink should start to flow rapidly and should continue to flow evenly and without interruption.

A good gold pen point should last at least 10 years. The best are made of 14K gold. The gold content is stamped on the point. Avoid 10K or 12K points, as they are brittle and often split or crack. Cheaper pens with gold plated steel points tend to become corroded by ink.

Gold points are generally tipped with iridium alloys to give a hard, durable writing surface. The most satisfactory tips for steel points have additional material—an iridium or osmuim alloy—welded on to the point. Less satisfactory than iridium reinforcement, but better than plain points, are those on which the steel tip is so bent as to give a smooth writing surface.

Proper setting of the point is a sign of good workmanship. The point should fit so snugly against the end of the feed that a thin piece of paper cannot be inserted between the two parts.

The two legs of the point should not cross or spread.

The section—the piece at the end of the barrel through which the feed and point project—should be made of hard rubber. If made of celluloid, it may become so tight (because celluloid shrinks) that the point often cannot be dislodged.

The filling device must create a good vacuum if the pen is to hold a large supply of ink. Be sure that a sac filler (operated by a lever at the side or end of the barrel) has the rubber sac glued to the sides of the section. A good "sacless" (plunger filled) pen has a small rubber sac at the end of the barrel. Plunger type pens with no sac tend to leak and their plunger packings are apt to be eaten away by direct contact with the ink.

(Continued next page)

A pen that holds 1.5 cc. (about 30 drops) of ink is adequate for most purposes. Almost any pen may leak or flood when the ink reaches a low level; the best preventive measure is to keep your pen well filled.

In past tests CU found *Waterman*, *Shaeffer* and *Parker* pens ranging in price between \$2 and \$5 to be of consistently good quality. Since changes in the market are impending, no new tests have been made, but careful examinations by CU's consultants indicate that *Majestic* (\$1) and *Eagle* (\$1 up) pens can also be recommended.

Care of your fountain pen is more important now than ever. Don't mix two kinds of ink; they may react chemically and clog the pen. Before you change brands, flush the old ink out thoroughly and wipe the point clean. Flush the pen thoroughly if it will not be in use for any length of time; if ink is left in it, the rubber may deteriorate and the metal parts corrode.

If your pen needs repair, have it done now. With ordinary use a good pen should need nothing more than a new sac every few years. But even if the point is broken or split, or the feed, clip or lever broken, the repairs should be a small fraction of the original cost of a good pen. It isn't worth while to have 25¢ or 50¢ pens repaired.

From the *Reports*, September 1942.

GARDENING

Don't start a garden unless you will see it through; fertilizer is scarce, seed, tools and labor precious. Learn how to space the seed. Don't raise more than you need. If you are inexperienced, start with a small garden. Don't try to work poorly drained land, pure sand or stiff clay. Be sure that every part of the garden gets at least five hours of sunshine a day.

To prepare the soil, dig it up and break it up. Have your State Experimental Station test it for acidity. If it is too acid, "sweeten it up" with two pounds of hydrated lime or four pounds of limestone per 100 square feet of soil. In general, if beets grow well, the soil is not too acid.

Vegetables need a continuous supply of water. Soak your garden 6 to 8 inches down with sprinkler or irrigation, not more than twice a week. You may have to mulch—fork spongy organic material well into the soil—to retain moisture. The best materials are barnyard manure, compost, peat, humus,

leaf mold or green manure crop, in that order. Mulch around tomatoes, cabbage and cucumbers with hay, grass or pine needles.

For plant food use barnyard (cow and horse) manure or compost, about 100 pounds per 100 square feet of soil. Also mix a complete chemical fertilizer (nitrogen, phosphorus and potash) into the top soil, four pounds of a 5-8-7 or 4-8-4 mixture per 100 square feet of soil. As a substitute for compost, you can chop pulled weeds (that have not gone to seed) into the ground after the sun has killed them.

Weed the garden assiduously. Get weeds while they're still small, and remove them from outside the garden as well as inside.

Send to your State Experimental Station for latest leaflets on pest control. Deal with disease and insects promptly and thoroughly all season. Prices of the needed materials are high, and there may be a shortage of nicotine and rotenone, so plan your crops according to your facilities for pest control. You'll probably need some protection for squash, cucumbers, cabbage, cauliflower, broccoli, beans, potatoes, celery, trellis tomatoes and, especially in the South, for sweet corn. Don't use fresh manure shortly before planting. Rotate your crops. Eliminate ant nests near your plants. Hand pick diseased foliage at once and burn it.

Adapt your crops to the soil and location. You can grow:

In average quality soil, in order of importance and efficient use of area: tomatoes, beans, carrots, lettuce, Swiss chard.

In freshly turned sod: cabbage, corn, squash, egg plant.

In very acid soil: strawberries, blueberries, watermelon.

In soil a little less acid: parsley, potatoes, radishes.

Only in sweet soil, or average soil with lime added: spinach, celery, asparagus, beets, cauliflower, leek, lettuce, muskmelon, onions, salsify.

In dry soil: carrots, cucumbers, squash, string beans, sweet corn, Swiss chard.

Where there is shade part of the day: cabbage, kale, lettuce, spinach.

Plan your garden with space on one side for crops remaining all season. Fill the rest with short rows of other vegetables to be planted at frequent intervals. Don't let tall crops shade the short ones. On hilly land, run the rows across the hill, not up and down.

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Plant hardy crops like spinach, peas, beets, carrots as soon as the ground can be worked; dust the seeds with red copper oxide before planting to prevent rotting. Start lettuce, tomatoes, cauliflower, egg plant, peppers early in cold frames; sweet corn, peas, cucumbers, melons in pots or boxes inside.

Tomatoes: Buy strong, stocky plants; set them out after all danger of frost is gone. If tied to stakes, train plants to one stem and set them two feet apart. Trellis tomatoes should be trained to two branches and set 18 inches apart. Rows should be four feet apart. Irrigate the rows, do not sprinkle; mulch the soil widely around the plants. Allow 25 pounds of fresh tomatoes, 30 pounds of canned tomatoes per person; 12 plants, trained to a support, normally yield 50 to 150 pounds.

String beans: Make successive plantings. Don't pick them while dew is on the vine. For pole beans erect long strong poles when the seeds are sown. Allow not more than five feet of bush beans per person. Good varieties are Pencil Pod Black Wax and Stringless Green Pod.

Carrots and beets: Sow every three or four weeks to the middle of August. Tendersweet is a high quality carrot, Crosby's Egyptian the best beet for succession planting. Don't sow beets too thickly; thin when six inches tall. Use extra beet plants for greens. Allow four inches between remaining plants.

Lettuce: Needs rich soil, moisture and cool weather to head. Make small plantings each week to the middle of August. Use White Big Boston for early lettuce, Cos (Romaine) varieties after May 15. Thin head lettuce to 12 inches apart; Cos varieties to 6 inches, with rows 12 inches apart.

Swiss chard: One planting, not more than two feet per person, lasts the season. Cut leaves when they are a foot high.

Be sure all seeds you buy are a high quality strain, free from weed seed and excessive chaff, with a high percentage of germination. Disease resistant and novelty varieties are usually inferior. It's best to buy through catalogs from good seedsmen; consult your State Experiment Station for their names. Don't buy seeds kept in a damp storeroom or displayed outdoors or in a sunny place. You're better off raising your own plants from seed; if you do buy plants, get good stocky ones with healthy foliage from good market gardeners or planters.

From the *Reports*, April 1942.

VEGETABLE SEEDS

** The following sources of supply are ranked for the consistent quality of their seed strains.*

BEST SOURCES

The following are generally recommended:

Joseph Harris Co., Inc. (Rochester, N. Y.). Specialties: beets, corn, muskmelons, peppers, tomatoes.

Robson Seed Farms (Hall, N. Y.). Specialty: hybrid corn.

Ferry-Morse Seed Co. (Detroit).

Abbott & Cobb (Philadelphia). Specialties: celery, lettuce, cucumber.

Comstock Ferre Co. (Wethersfield, Conn.). Specialties: corn, peas, beans, onions.

Eastern States Farmers' Exchange (Springfield, Mass.). All seed treated against disease. Low prices. Sells only in New England, Maryland, Delaware, and Pennsylvania.

Stumpp & Walter (NYC).

F. H. Woodruff & Sons (Milford, Conn.). Specialties: corn, beets.

The following are recommended only for their specialties:

D. V. Burrell (Rocky Ford, Colo.). Melons.

Glick's Seed Farm (Smoketown, Pa.). Tomatoes.

Livingston Seed Co. (Columbus, Ohio). Tomatoes.

Francis C. Stokes Co. (Moorestown, N. J.). Tomatoes.

GOOD SOURCES

F. W. Eberle (Albany, N. Y.).

Alexander Forbes & Co. (Newark, N. J.). Specialties: celery, cauliflower.

Fredonia Seed Co. (Fredonia, N. Y.). Commission packeters.

Peter Henderson (NYC). Specialty: cauliflower.

Vaughan's Seed Store (Chicago and NYC).

O. H. Will & Co. (Bismarck, N. D.). Varieties for a short growing season, and heat. Specialty: seed corn.

NOT GENERALLY ACCEPTABLE

Some seed good, but in the opinion of CU's consultants, quality too variable at best.

W. Atlee Burpee Co. (Philadelphia).

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NOT GENERALLY ACCEPTABLE—CONT'D

Breck's (Boston). But good golden bantam corn.

W. E. Barrett Co. (Providence, R. I.).

The great majority of city seed stores.

The majority of commission packeters.

"Collections" put up to sell at a low price.

FERTILIZERS

Only mixed fertilizers are available this year.

BEST BUY

Complete Chemical Fertilizers. "5-8-7", "4-8-4", etc. Any 4-8-4 fertilizer contains 4% total nitrogen, 8% available phosphoric acid and 4% water soluble potash. Always buy by analysis, not by brand name. The most reliable are open formula fertilizers with the ingredients named on the container; best buys may be had from farmers' co-operatives (if you need 50 to 100 lbs.).

ALSO ACCEPTABLE

Armour's Vert; Gro-Green-Loma; Vigoro. Look for the analysis printed on the package and buy by price. The first figure of the formula should be at least 25% of the total, such as "4-8-4."

Fresh Poultry Manure. Low organic content; caustic—should be turned under. Not generally useful, but good for spinach, corn, cabbage, asparagus, celery.

NOT ACCEPTABLE

Vita-Liza. Very low grade ingredients.

Pulverized manures: sheep, poultry, **Driconure; Botung**, etc. Low in plant food, lacking in the beneficial bacteria present in fresh manures, and too expensive.

INSECTICIDES & FUNGICIDES**• NICOTINE****BEST BUY**

Black Leaf 40. The most reliable 40% nicotine sulphate.

ALSO ACCEPTABLE

N.P.C. Nicotine Sulphate 40%. Not as effective as the above, but cheaper.

Wilson's OK Plant Spray; Alphine; Aphis Spray. Very expensive per unit of active ingredients.

- **SPREADERS, ACTIVATORS AND CARRIERS**

BEST BUYS

Potash Fish-Oil Soap. A good brand is **NOPCO**; good sources are James Good, Inc., Philadelphia; W. H. Owen, Port Clinton, Ohio; Wm. S. McDonough & Son, NYC. Use only with nicotine.

Grasselli Spreader (E. I. duPont de Nemours & Co., Wilmington, Del.).

Ultracet (Atlantic Refining Co., Philadelphia). Neutral chemical spreaders for any kind of spray except nicotine.

Grandpa's Wonder Pine Tar Flakes (lowest price). **Grandpa's Liquid Pine Tar Spray, Red A Soap, CPO Liquid Soap.** Neutral soap spreaders for pyrethrum and rotenone solutions.

Loomkill Talc (first choice.) **Treni Dust, Inert C. Dust.** Light carriers for pyrethrum and rotenone dusts, usually sold wherever rotenone and pyrethrum dust are sold.

ALSO ACCEPTABLE

Fuller's Earth (sold at drug stores). Carrier for dusts, as above.

Pure laundry soap flakes or beads. Use only with nicotine.

NOT ACCEPTABLE

Cheap Laundry Soap or any containing builders. May burn foliage.

- **PYRETHRUM**

Pyrethrum, a non-poisonous contact insecticide, must be fresh to be effective; sprays are more efficient with the addition of a neutral spreader. It is cheaper this year than last, and should be substituted for rotenone wherever equally effective. Do not use Potash Fish-Oil Soap or soap flakes with the sprays.

BEST BUYS

Multicide. First choice of pyrethrum-sprays.

(Continued next page)

BEST BUYS—CONT'D

Pyrocide Dust No. 10 (0.2% pyrethfins) and **No. 7½** (0.15% pyrethrins).

Cornex. A pyrethrum oil for corn ear worm. The best remedy.

ALSO ACCEPTABLE

Red A Pyrethrum Powder; Black Arrow Insect Dust 5000; Red Arrow Garden Spray; DX.

• ROTENONE

Rotenone sprays and dusts act as both contact and stomach poisons for insects and are non-poisonous to humans. Rotenone kills selectively and may require up to 48 hours to take effect; it remains effective on plants for 3 to 4 days as a stomach poison. The dust is not as efficient against aphids and leaf hoppers as spray solution plus a neutral spreader; for other purposes dust is preferable. It keeps well if stored in an air-tight container, away from light. Rotenone is scarce and more expensive than pyrethrum. Do not use Potash Fish-Oil Soap or soap flakes with the sprays.

BEST BUYS

Rotenone Greenhouse Spray, Serrid Super Agricultural Spray; Home-mixed Rotenone-Clay Dusts. To make a 0.75% dust: Shake in a box with a few pebbles, ½ lb. derris or cube, 4% dust and 2½ lbs. talc inert clay or fuller's earth. Available from farmers' cooperatives, orchard supply houses, and seed stores.

Unbranded Rotenone-Clay Dusts. Preferably fresh and mixed on order.

ALSO ACCEPTABLE

Foliafume; Sea Green; Bug-a-Boo Garden Spray; Green-tox; Rotecide; Kubatox Liquid. These sprays, although not as effective against resistant insects as the Best Buy sprays, are acceptable for ordinary use.

Rotecide Dust. This can be used if fresh.

• STOMACH POISONS AND BAIT

All stomach poisons except rotenone are poisonous to human beings. Arsenicals and fluosilicates should not be used in vegetables. Baits are very poisonous. Use extreme care in

handling and storing them, and keep children and animals away from the garden when they are being used.

BEST BUY

Apex Ant Killer (Clean Home Products, Inc., Chicago).

Thallium sulphate in an efficient, safe container. The best ant bait. Cover opening with tape when not in use.

ALSO ACCEPTABLE

Antsix (Bonide Chemical Co., Utica, N. Y.); **Magikil Ant Jelly; Tat.** Thallium sulphate.

Antube. Sodium arsenate—not so efficient, but also less poisonous than the above.

NOT ACCEPTABLE

Antrol; Snarol (baits). Inefficient.

Helebore; Dutox; Insectrogen; Barium Fluosilicate; Lead, Magnesium and Calcium Arsenates.

• COPPER FUNGICIDES

Copper is slightly poisonous. Therefore, wash carefully vegetables on which copper has been used. Wash sprayer after using copper.

BEST BUYS

Copper-Lime Dust 20-80. Buy one year's supply—10-15 lbs. for a good-sized home garden.

Homemade Bordeaux Spray. Dissolve $1\frac{1}{2}$ oz. ($2\frac{1}{2}$ tablespoonfuls) of powdered copper sulfate in a little water; stir $1\frac{1}{2}$ oz. (6 tablespoonfuls) of hydrated spray lime in a little water; combine and add water to make one gallon. Use at once; throw away surplus spray. If used to supplement copper-lime dust, 5 lbs. of each ingredient will be enough.

Neutral Copper Fungicides to combine with rotenone. There are three kinds about equally effective. One good one is **Red Copper Oxide** manufactured by Rohm & Haas, Philadelphia.

NOT ACCEPTABLE

Dry Bordeaux Powders. Sprays from these powders are never as efficient as homemade Bordeaux spray and are sometimes adulterated.

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• COMMERCIAL MIXTURES

Any pyrethrum-rotenone mixture which contains enough of each ingredient to be effective in every case is often wasteful. Some mixtures of pyrethrum and rotenone do not contain enough of one or the other to be effective against certain insects. "All round mixtures" usually contain lead arsenate or other poisons.

ACCEPTABLE

Pyrote. Wasteful (see above).

NOT ACCEPTABLE

Nico-rote (spray); **Lucky Strike Dust**; **Lutsite**; **Triogen**; **Pyrox**; **Acme All Round Spray**. Contain lead arsenate.

SPRAYERS AND DUSTERS

Good care will lengthen the life of a sprayer. Wash out thoroughly each time it is used.

BEST BUYS

Handy Box Duster (Clean Home Products, Co., Chicago). Made of cardboard; cheap. Buy one for each kind of dust. **Feeny**; **Pomogreen**; or **Hudson** dusters. Plunger type. Buy on a price basis.

Smith Banner Open Top Compressed Air Sprayer (D. B. Smith, Utica, N. Y.). 3 and 4 gal.

ALSO ACCEPTABLE

Smith Blizzard Hand Sprayer. 1 qt. good for about 1 year. **Sprayit GV7** (Electric Sprayit Co., South Bend, Ind.). **Champion Sprayer** (Champion Sprayer Co., Detroit). 5 gal. First choice of knapsack sprayers—good, but heavy. **Siren Knapsack Sprayer** (E. C. Brown).

NOT ACCEPTABLE

Most Small Hand Sprayers. Will not last through one season without leaks.

Antipestick. Hose Sprayer. Poor cartridges, inefficient.

Arnold Hose Sprayer. Convenient, with good cartridges. But no way to control strength of solution for special purposes. May be useful as extra equipment.

NOT ACCEPTABLE—CONT'D

Insectogun Hose Sprayer. Has serious drawbacks (suspensions clog it), but controls solutions accurately and is good under special conditions.

REFERENCES

Dempsey, Paul, *Grow Your Own Vegetables*. Houghton Mifflin, 1942. \$2.50. The latest developments in cultural methods, insect and disease control, and varieties. Intensive use of space, how to combine vegetables and flowers. An excellent book.

Farrington, E. I., *The Vegetable Garden*. Hale Cushman & Flint, 1939. \$1.00. A handbook for the amateur with small garden space. Treats all planting, care, and harvesting of vegetables, giving suggestions on varieties for storing and canning.

Bailey, L. H., *Principles of Vegetable Gardening*; revised edition. Macmillan, 1941. \$3.75. Discusses all types of vegetable crops with recommendations for care and culture. General growing practices; proper equipment, seedage, disease, insect prevention and cure, marketing.

Bush-Brown, L. & J., *America's Garden Book*. Scribner's, 1939. \$3.50. An encyclopedia of general gardening, including an excellent chapter on vegetables, which deals with the general requirements of vegetable gardening for the small place.

Write your State Experiment Station for their *latest revised edition* of their pest control bulletin. Recommendations have been changed this year to meet the shortage of certain materials.

MECHANICAL PENCILS

Production of mechanical pencils has stopped, but they are still on the retail market. Style and trimming material distinguish \$2 or \$3 mechanical pencils from 25¢ ones. Except for a few automatic pencils, the mechanisms differ very little.

Most mechanical pencils have "screw feed" movements to propel and repel the lead. These exist in two equally good types of inner mechanism. The lead is pushed back and forth

either by turning the writing tip (front action) or the eraser end (rear action). Or the barrel of the pencil may be divided in half and the lead moved by turning one-half of the barrel. Which model you buy depends mainly on personal preference, though front action pencils are frequently somewhat difficult to operate, because of the limited gripping space on the metal tip.

Automatic pencils have no screw movement; lead is fed into the tip by pushing down on the eraser end of the pencil. New leads are fed from the magazine automatically. All tested by CU performed satisfactorily, but some users report difficulty with clogged mechanisms.

Length and thickness of leads are indicated in the ratings. Thin leads permit finer work but break more easily. Short leads require frequent reloading, but a pencil using them can have larger magazine capacity without an increase in its thickness. If you don't object to a thick pencil, you can get one using 4-in. lead with a capacity of 12 leads.

Different samples of the same brand and model may vary considerably. Examine any pencil well before buying; check particularly the following points:

The movement should operate easily. There should be almost no "play" in the movement; extend the lead to writing position, press against the point and see if there is any back and forward motion of the lead. Pull on the lead to see if the clutch in the movement holds it firmly. The lead should fit snugly within the metal tip. The pencil should be able to expel it completely, to prevent clogging the metal tip.

The magazine and the eraser should be readily accessible; the eraser should fit firmly in its holder.

In rating, the following factors were considered: movement, tip, length of lead, capacity and convenience of magazine, ease of operation. The number of leads given refers to total magazine capacity. Appearance was not taken into consideration. One to five samples of each model were tested.

From the *Reports*, January 1942.

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Re-read them now and then.

MECHANICAL PENCILS

BEST BUYS

The following pencils of the "Acceptable" list were judged to offer the best value for the money, in order of quality. For details see listings under "Acceptable."

Wearever No. 344C. 20¢ to 25¢.

Leeds. 25¢.

American. 25¢.

American Superthin. 25¢.

ACCEPTABLE

(In order of quality without regard to price)

Pencils with no magazine are "Acceptable" only if extra lead capacity is not important to you.

Parker Duo-Fold Model 713 (Parker Pen Co., NYC). \$2.

Removable tip. Twelve 2½-in. thin leads. Well-designed; gold-filled tip and clip.

Waterman (L. E. Waterman Co., Newark, N.J.). \$1.25. Removable tip. Twelve 2½-in. thin leads.

Dixon Rite-Rite Viewpoint No. 100 (Rite-Rite Mfg. Co., Chicago). \$1. Removable tip. Twelve 2½-in. thin leads. Long, tapered point.

Schaeffer's Model FLE (W. A. Schaeffer Pen Co., Ft. Madison, Iowa). \$2.50. Six 2½-in. thin leads. Partly gold-filled barrel.

Dixon Rite-Rite (Rite-Rite Mfg. Co.). 49¢. Essentially the same as *Dixon Rite-Rite Viewpoint* No. 100, above, except for tip. A much better value than the *Viewpoint*.

Schaeffer's Fineline (W. A. Schaeffer Pen Co.). \$1. Gold-filled clip and tip. Identical with *Schaeffer's* Model FLE above, except did not have a partly gold-filled barrel. A much better value than Model FLE.

Parker DeLuxe Model 927 (Parker Pen Co.). \$1.50. Removable tip. Twelve 1½-in. thin leads, and therefore inferior to *Parker Duo-Fold* Model 713. Gold-filled tip and clip.

Wearever No. 344C (Wearever Pencil Co., NYC). 20¢ to 25¢. Twelve 4-in. thick leads. Transparent plastic barrel. Sold with magazine full of extra leads.

Leeds (distrib., Schulte's Cigar Stores). 25¢. Essentially the same as the *Wearever* No. 344C.

(Continued next page)

ACCEPTABLE—CONT'D

- American Blackbird** (American Lead Pencil Co.). 29¢. Twelve 4-in. thick leads. Transparent barrel.
- American Superthin** (American Lead Pencil Co.). 25¢ with 7 extra leads and 3 extra erasers.
- American Blackbird.** 29¢. Twenty-four 2-in. thin leads.
- Eberhard Faber** (Eberhard Faber Co., Brooklyn, N.Y.). 50¢. Ten 2-in. thin leads.
- Wearever** (Wearever Pencil Co.). Distributed by Montgomery Ward as Cat. No.—5588, 23¢ plus postage. Eighteen 1½-in. thick leads.
- Eversharp Slim Jim** (The Wahl Co., Chicago). 49¢. Six 2¾-in. thin leads. Magazine rather inconvenient.
- Permapoint** No. 137 (Eberhard Faber Co.). 10¢. Six 2-in. thin leads. Transparent plastic barrel.
- Penney's** (J. C. Penney Co.). 25¢. Twelve 1½-in. thick leads.
- Scripto** No. 71 and No. 70 (Scripto Mfg. Co., Atlanta, Ga.). 10¢. Used 4-in. thick lead. No magazine. No. 71 had transparent plastic barrel.
- Macy's** (R. H. Macy & Co., NYC). 29¢. Forty-eight 1½-in. thick leads.
- Eagle Chromatic** (Eagle Pencil Co., NYC). 10¢. 4-in. thick lead. No magazine.
- Velvet** (American Lead Pencil Co.) 10¢. 4-in. thick lead. No magazine. Available with barrels of various plastics, some transparent.
- Sears' Auto-Webster** Cat. No.—5766 (Sears-Roebuck). 87¢ plus postage. Used odd size (2½-in.) thin lead. Magazine capacity, 12 leads. Eraser unsatisfactory.
- Mongol** No. 36 (Eberhard Faber Co.). 10¢. Twenty-three 1½-in. thick leads.
- Autopoint** (Autopoint Co., Chicago). 75¢ for model using twelve 1½-in. thick leads; 49¢ for model using sixteen 1½-in. thin leads. Neither repelled; both difficult to load.
- Wearever Hairline** (Wearever Pencil Co.). 10¢. Used 2-in. thin lead. No magazine.

NOT ACCEPTABLE

The following pencils were rated "Not Acceptable" because the movements were easily broken by turning the mechanism past the extreme repel position.

Parker Writefine (Parker Pen Co.). \$1.

Eagle No. 50 C (Eagle Pencil Co.). 50¢.

AUTOMATIC PENCILS

ACCEPTABLE

(*In estimated order of quality*)

Eversharp No. 178 (The Wahl Co.). \$2.50. Twenty-three $1\frac{3}{8}$ -in. thin leads. Stainless steel barrel and tip; gold-filled clip. Inside mechanism easily removed for cleaning.

Esterbrook (Esterbrook Steel Pen Co., Camden, N. J.). \$1. Eighteen $1\frac{3}{8}$ -in. thick leads. Inside mechanism easily removed for cleaning.

Eversharp 181 (The Wahl Co.). \$1. Essentially the same pencil as the \$2.50 *Eversharp* listed above except for barrel.

Schaeffer's (W. A. Schaeffer Pen Co.). \$1. Eighteen $2\frac{3}{4}$ -in. thin leads.

MULTIPLE-COLOR PENCIL

The following pencil is a special type containing from two to four movements, each with a different color lead. It is "Acceptable" only for persons who find this feature a particular convenience.

ACCEPTABLE

Norma (Norma Multikolor Co., NYC). \$1.50 (for 2-color pencil) and up. Eighteen $1\frac{3}{8}$ -in. thick leads. Thick. Performance quite satisfactory for the purpose.

TOYS

Because of lack of metal and rubber many familiar toys will disappear from the market. Plastics, plywood and some other woods sought by manufacturers as substitutes are in many cases under priority orders. The trade itself does not know what the next year will bring in the toy field.

This year, canvass your friends for hand-me-downs; repair old toys; improvise new ones. Soap boxes are still good material for toy making.

Erector sets, Meccano sets and electric trains are not being manufactured for the duration. Plastic and metal toys and

musical instruments (of doubtful play value at best) are disappearing. Rubber balls are growing scarce.

Books for all ages are plentiful. Suit the book to the child; librarians frequently have lists for various ages. Geography is becoming thrilling to the child from nine up, and a subscription to *National Geographic Magazine* (National Geographic Society, Washington, D. C., \$3.50 a year) will bring much pleasure. A good magazine for the child from five to ten is *Child Life* (729 Boylston St., Boston, \$2.50 a year); a child from six to thirteen will enjoy *Story Parade* (100 Fifth Avenue, NYC, \$2 a year).

When choosing toys, always buy with an eye to durability. Look for tightly attached wheels, properly fitted parts, smoothly running mechanisms. Make sure toys for small children don't have lead paint; vegetable paint is safest. Toys made of plastics should not be breakable. Toys with sharp corners should be avoided whenever possible. See that kiddie cars and tricycles are well-braced, not easily tipped, and that their weight bears some relation to the weight of the child who will use them.

Select toys which a child can use and manipulate rather than those he can merely look at. Avoid playthings which require only passive attention. A truck which only goes around and around once it is wound up lacks the appeal of a truck which can be really loaded and unloaded and sent places.

Choose toys according to a child's capacity for play. Don't give a two-year old a plaything suitable for a six-year old. The following list of toys is graded by age suitability.

Under one year: Washable animals, with no parts that might come off and be swallowed; wooden beads strung tightly on stout string; rattles.

One to Two: Gadgets that can be fitted together, such as nested boxes and simple peg boards; durable stuffed animals with no loose eyes; bells to ring; a large brightly-colored ball to throw; an undressed, unbreakable doll; toys to push or pull.

Two to Four: Large blocks of the nursery school type (start with not more than a dozen, and increase the number as the child's interest develops). These are available (but expensive) in most department stores, or a good carpenter can make them from measurements obtainable from any nursery school. Educational Equipment Co., 69 Bank St., NYC, and Cooperative Distributors, 116 East 16 St., NYC, ship blocks of this type by mail.

Housekeeping toys, such as dishes, laundry equipment, cleaning equipment, related in size to each other if possible; miniature automobiles and dump trucks; unbreakable dolls (for both boys and girls) with movable arms and legs and with squares of cloth to dress them in; big balls with rough texture for throwing and catching; blunt scissors; big thick crayons, with 12 by 18-inch paper on which to use them; picture books with large pictures and few words; inch-size wooden beads to string on shoe laces; musical instruments such as a small drum, clappers, tambourine; bingo-bed hammer sets; interlocking wooden trains.

Outdoor toys such as wagons, wheelbarrows, kiddie cars with pedals (if you know that there's a place where the child can use them), sand toys, more "push-and-pull" toys.

Four to Six: Carpentry equipment of the simpler sort—a good hammer, with a broad head, a good child's size saw, big nails, and soft wood boards. Avoid cheap workbenches already equipped; they usually have too many tools of poor quality.

Dress-up costumes, play-stores, scrapbooks, simple paper dolls, simple large puzzles; showcard colors with inch-wide paint brushes and large paper; soap bubble sets, *Tinkertoy* sets, games such as object lotto, animal lotto, dominoes (with symbols instead of numbers); picture books and simple stories, well illustrated.

Six to Eight: Games such as parcheesi, lotto, dominoes; marbles; balls of all kinds; table tennis sets, workbenches, additional equipment such as screwdrivers, saws, &c.; more complicated puzzles, cut-outs; roller skates; simple hand puppets; printing sets; more complicated put-together toys; more books. Tricycles, wagons, and scooters are good also for this age.

Electric trains should be given only to children over seven. First trains should be simple, preferably freight trains which can be loaded and unloaded. Wait until the child is older to give him special switches and cars.

Eight or over: Find out about the child's hobbies and collections, and give toys which will help to develop them. Cameras can be handled by ten-year-olds.

Good small microscopes; a telescope (be sure the lens is reasonably good); chemical sets of varying elaborateness (start with the simplest). Avoid lead-casting outfits because of lead poison hazard.

(Continued next page)

Sports equipment, musical instruments, music or dancing lessons—if you're sure the child wants them.

Meccano, Erector and similar sets, if available, should be given only to children of eight or over. These sets have many small pieces which require good muscular coordination to assemble. The boxes in which they come are usually flimsy; a sturdy wooden box should be provided for storing the parts.

Give model building sets to a child of ten or over. Interest in, and ability to make, models seems to be most intense at this age. Make sure accompanying instructions are clear.

A good phonograph is suitable for a child of any age. Avoid the cheap, tinny toy phonographs with scratchy records sold in toy departments. Long-wearing, good recordings of nursery and other suitable music, clearly sung and played, are made by Victor and Decca. A radio also appeals to any child, though it's best for children over eight. But parental approval and supervision of its use are essential.

Don't give large toys, such as ping-pong tables, gymnasium outfits, &c., to children unless their parents have approved your choices in advance. Space in which to use them may be limited.

At Christmas time shop the five-and-tens for small "stocking" gifts. Any child will like rulers, a paper punch, a stapling machine, round key rings which open and close, padlock and key, glue, folding rules, a level, small puzzles, &c.

It is the opinion of most educators that guns, when used as dramatic play material by a child only normally interested in such play, are not harmful, especially if such equipment is necessary to make him "one of the gang."

TYPEWRITERS

The only typewriters which are still unrated are the so-called "stripped" models of portables. These are machines selling for \$40 or less, which lack some feature of a standard typewriter, such as four rows of keys or both capital and small letters. For the inexpert typist who uses a machine occasionally they are satisfactory, but most of them are not suitable for learning the standard touch system of typing.

If you already have a typewriter, treat it with care and you will prolong its efficiency and save considerable expense in cleaning and adjustment.

Never put a single sheet of paper into your machine. A second sheet used as a backing cushions the blows of the type and saves wear on the roller. Remember, the roller is made of rubber, and you may have trouble replacing it.

Be sure to keep the machine covered when not in use to protect it from dust.

When you make erasures, push the carriage over to the side, so that eraser dust will not accumulate among the type bars.

Brush the type faces occasionally with a stiff-bristled brush to remove accumulated lint and ink. Go over the type faces thoroughly, especially such letters as o, e, a and q, which have enclosed spaces.

Once in a while, put a drop of fine oil on the rails on which the carriage moves; then rub it off again, because excess oil accumulates dust. Do not attempt to oil the type bars or any other part of the mechanism, as this may gum or clog the working parts.

For further information, see the *Reports*, August 1941.

TYPEWRITER RIBBONS

Typewriters ribbons are made in a variety of weights and inkings to suit the needs of individual typists and typewriters. CU found a medium-inked, medium-thick ribbon practical for most jobs.

Specifically, light- to medium-inked ribbons were found to be best for typewriters with Elite type; medium to heavy inking for Pica type, and medium to extra heavy inking for Gothic type. Special inking, as well as specially thin fabric, is required for ribbons used on noiseless typewriters, since such machines do not hammer the ink into the paper but deposit it on top, where it may smudge before it is absorbed.

Cotton ribbons are generally more satisfactory, since they're cheaper, last longer, and the writing is usually stronger with them than with a silk ribbon. Silk, however, gives an extremely clear and sharp impression and should be used where exceptional neatness is required.

Results of tests on all ribbons (both cotton and silk, and for both standard and portable machines) showed little correlation between price and quality. Since the inking was found to be poorer in portable ribbons and since portable ribbons are generally the same length and width as standard ribbons,

it's good economy to buy a "Best Buy" standard ribbon for a portable. You can then rewind the ribbon onto the portable spool, performing this operation right in your typewriter. In the case of the *Remington* portable which takes only six yards, you can save doubly by getting a standard 12-yard ribbon and cutting it in two.

CU tested ribbons for wear down of the ink and fabric, type filling, ability to recover inking properties, thread count, thickness and general condition of the fabric. All performance tests were made on a constant-stroke electric typewriter. Ribbons in which the fabric was destroyed during a reasonable wear-down test period were considered "Not Acceptable."

Because many stationers carry private brands, put up for them by one or another of the manufacturers listed below, you may not always be able to find the ribbons under the names listed in the ratings. But these ribbons can be easily obtained for you by any stationer.

From the *Reports*, April 1941.

COTTON RIBBONS FOR STANDARD MACHINES

BEST BUYS

Mittag & Volger #1000 (Mittag & Volger, NYC). \$1.
Highest quality tested and an outstanding buy.

Mittag & Volger #900. 50¢. Second highest quality tested.

Old Town Tan Box (Old Town Ribbon & Carbon Paper Co., Brooklyn). 50¢. Fifth highest quality tested. Price makes it a "Best Buy."

ALSO ACCEPTABLE

(In order of quality without regard to price)

Mittag & Volger #300 (Mittag & Volger). 75¢. Third highest quality tested.

Old Town Blue Box (Old Town Ribbon & Carbon Paper Co.). 75¢. Fourth highest quality tested.

Burrough's (Burrough's Adding Machine Co., NYC). \$1.

Keelox Brand (Keelox Mfg. Co., NYC). \$1.

Servus (S. S. Stafford Co., NYC). 65¢.

Vogue (Royal Typewriter Co., NYC). 75¢ for 8-yard ribbon;
cost for 12 yards, \$1.13.

Value (Royal Typewriter Co.). 60¢.

ALSO ACCEPTABLE—CONT'D

- Ward's Best** Cat. No.—8773. 95¢ plus postage.
- Copyright** (A. Carlisle & Co., San Francisco). \$1.
- Paragon** (Remington Rand Co., NYC). 75¢.
- Ivory** (Keelox Mfg. Co.). 75¢.
- Herald Square** (Woolworth Stores). 20¢ for 11-yard ribbon; cost for 12 yards, 22¢.
- Neidich #1** (Neidich Process Co., NYC). 75¢.
- Manchester** (Woodstock Typewriter Co., NYC). \$1.
- Imperial** (Peerless-Key Co., NYC). 50¢.
- 3-R** (Ault & Wiborg Carbon & Ribbon Co., NYC). 65¢.
- CD** (Cooperative Distributors, NYC). 50¢ plus postage.
- Empress** (Peerless-Key Mfg. Co.). 65¢.
- Sears' Aristo** Cat. No.—4677. 94¢ plus postage.
- Standard** (Woodstock Typewriter Co.). 75¢.
- Sears' Defender** Cat. No.—4687. 33¢ plus postage.
- #1 Grade** (Columbia Ribbon & Carbon Co., NYC). \$1.
- Superfine** (S. S. Stafford Co.). 75¢.
- OK** (F. S. Webster Co., NYC). 75¢.
- Imperial** (Peerless-Key Co.). 75¢.
- Ideal** (Carter's Ink Co., NYC). \$1 for a 10-yard ribbon; cost for 12 yards, \$1.20.
- Old Town Green Box**. 65¢.
- Sears' Marvello** Cat. No.—4669. 59¢ plus postage.
- Standard** (S. S. Kresge Stores). 25¢.
- #2 Grade** (Columbia Ribbon & Carbon Co.). 75¢.
- Neidich #2** (Neidich Process Co.). 50¢.
- Aulta** (Ault & Wiborg). 75¢.
- Underwood Blue Box** (Underwood-Elliott-Fisher, NYC). \$1.10.
- Underwood Green Box**. 75¢.
- Type-Bar** (Smith-Corona Typewriter Co., NYC). 75¢.
- A&W** (Ault & Wiborg). \$1.
- Secretarial** (Smith-Corona). \$1. Poor quality inking.
- Personality** (S. S. Stafford Co.). 50¢. Poor quality inking.
- Rembrandeo** (Remington Rand Co.). \$1. Poor quality inking.
- Quality** (J. J. Newberry Stores). 25¢. Poor quality inking.
- Elk** (Miller-Bryant-Pierce, NYC). 75¢. Poor quality inking.
- Miller Line** (Miller-Bryant-Pierce). 50¢. Poor quality inking.
- Emerald** (Smith-Corona Typewriter Co.). 60¢. Poor quality inking.
- Ward's Economy** Cat. No.—8596. 36¢ plus postage. Poor quality inking.

(Continued next page)

NOT ACCEPTABLE

The fabric on the following tore during the wear-down tests.

Kreko (S. H. Kress Stores). 25¢.

#88 (Columbia Ribbon & Carbon Co.). 50¢.

Guardian (Carter's Ink Co.). 50¢.

Battleship (F. S. Webster Co.). 50¢ for 14-yard ribbon; cost for 12 yards, 43¢.

Ward's Better Quality Cat. No.—8806. 63¢ plus postage.

COTTON RIBBONS FOR PORTABLE MACHINES**ACCEPTABLE**

(In order of quality without regard to price)

CD (Cooperative Distributors, NYC). 50¢ for 10-yard ribbon; cost for 12 yards, 60¢.

Imperial (Peerless-Key Co., NYC). 75¢ for 14-yard ribbon; cost for 12 yards, 64¢.

Aulta (Ault & Wiborg Carbon & Ribbon Co., NYC). 75¢.

Old Town Blue Box (Old Town Ribbon & Carbon Paper Co., Brooklyn). 75¢.

A&W (Ault & Wiborg Carbon & Ribbon Co.). \$1.

Old Town Green Box (Old Town Ribbon & Carbon Paper Co.). 65¢.

Burrough's (Burrough's Adding Machine Co., NYC). \$1 for 10-yard ribbon; cost for 12 yards, \$1.20.

Keelox Brand (Keelox Mfg. Co., NYC). \$1.

#1000 (Mittag & Volger, NYC). \$1 for 10-yard ribbon; cost for 12 yards, \$1.20.

Ivory (Keelox Mfg. Co.). \$75¢.

Rembrandco (Remington Rand Co., NYC). 75¢ for 6-yard ribbon; cost for 12 yards, \$1.50.

Ideal (Carter's Ink Co., NYC). \$1.

Neidich #1 (Neidich Process Co., NYC). 75¢.

#300 (Mittag & Volger). 75¢ for 10-yard ribbon; cost for 12 yards, 90¢.

Sears' Marvello Cat. No.—4681. 59¢ plus postage.

Copyright (A. Carlisle & Co., San Francisco). \$1.

Old Town Tan Eox (Old Town). 50¢.

#900 (Mittag & Volger). 50¢ for 10-yard ribbon; cost for 12 yards, 60¢.

ACCEPTABLE—CONT'D

- Empress** (Peerless-Key Co.). 65¢.
Superfine (S. S. Stafford Co., NYC). 75¢.
Battleship (F. S. Webster Co., NYC). 50¢.
Paragon (Remington Rand Co.). 50¢ for 6-yard ribbon; cost for 12 yards, \$1.
Personality (S. S. Stafford Co.). 50¢.
Servus (S. S. Stafford Co.). 65¢.
Herald Square (Woolworth Stores). 20¢ for 10-yd. ribbon; cost for 12 yards, 24¢.
3-R (Ault & Wiborg Carbon & Ribbon Co.). 65¢.
OK (F. S. Webster Co.). 75¢. Poor quality inking.
Neidich #2. 50¢. Poor quality inking.
Underwood Green Box (Underwood-Elliott-Fisher Co., NYC). 75¢. Poor quality inking.
Underwood Blue Box. \$1.10. Poor quality inking.
Ward's Better Quality Cat. No.—8807 (Montgomery Ward). 63¢ plus postage. Poor quality inking.

NOT ACCEPTABLE

The fabric on the following ribbons tore during the wear-down test.

- XLNT** (Peerless-Key Co.). 50¢.
Miller Line (Miller-Bryant-Pierce). 50¢.
Sears' Aristo Cat. No.—4627 (Sears-Roebuck). 94¢ for 10-yard ribbon, plus postage; cost for 12 yards, \$1.13.
Pidgeon (Smith-Corona Typewriter Co.). 50¢.
Ward's Best (Cat. No.—8797 (Montgomery Ward). 95¢ plus postage.
Quality (J. J. Newberry Stores). 25¢.
Standard (S. S. Kresge Stores). 25¢.
Guardian (Carter's Ink Co.). 50¢.
Vertex (Royal Typewriter Co.). \$1 for 10-yard ribbon; cost for 12 yards, \$1.20.
Elk (Miller-Bryant-Pierce). 75¢.

(Continued next page)

The introductory pages at the front contain much material helpful to your use of this Buying Guide. Re-read them now and then.

SILK RIBBONS FOR STANDARD MACHINES

ACCEPTABLE*(In order of quality without regard to price)***Vulcan** (Royal Typewriter Co., NYC). \$1.50.**Underwood** Gold Box (Underwood-Elliott-Fisher, NYC). \$1.50.**Carter's Silk** (Carter's Ink Co., NYC). \$1.50.**Patrician** (Remington Rand Co., NYC). \$1.50.**Type-Bar Silk** (Smith-Corona Typewriter Co., NYC). \$1.50.**Silk Star** (F. S. Webster Co., NYC). \$1.25.**Silk** (Neidich Process Co., NYC). \$1.50.**Madame Butterfly** (Miller-Bryant-Pierce, NYC). \$1.25. Poor quality inking.**NOT ACCEPTABLE***The fabric on the following brand tore during weardown test.***Wonder Brand** (Keelox Mfg. Co.). \$1.25.

SILK RIBBONS FOR PORTABLE MACHINES

ACCEPTABLE*(In order of quality without regard to price)***Silk Star** (F. S. Webster Co., NYC). \$1.25.**Vulcan** (Royal Typewriter Co., NYC). \$1.50 for 10-yard ribbon; cost for 12 yards, \$1.80.**Wonder Brand** (Keelox Mfg. Co., NYC). \$1.25.**Madame Butterfly** (Miller-Bryant-Pierce, NYC). \$1.25.**Underwood** Gold Box (Underwood-Elliott-Fisher, NYC). \$1.50.**Silk** (Neidich Process Co., NYC). \$1.50.**Patrician** (Remington Rand Co., NYC). \$1 for 6-yard ribbon; cost for 12 yards, \$2.**NOT ACCEPTABLE***The fabric on the following brand tore during weardown test.***Carter's Silk** (Carter's Ink Co.). \$1.50.

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